The Evolution of
Folk House Forms
in
Trinity Bay, Newfoundland

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CHAPTER I

CONCEPTS AND METHODS IN THE STUDY OF FOLK ARCHITECTURE

The study of folk architecture in Newfoundland and Canada is in its infancy, in contrast to Europe and even the United States where cultural geographers, folklorists, and architectural historians have laboured for decades in this field. Because of its historic isolation in North America, and its overwhelmingly rural nature, Newfoundland has been until very recently a splendid laboratory for the study of folk architecture and indeed many aspects of folk culture. Hundreds of small Newfoundland outport communities remain basically rural in character and can still be described as outposts of English and Irish folk culture on the edge of North America. Folk customs, superstitions, songs, dialects, and a wide array of rural crafts, many no longer existant in their original homeland, are still part of the living traditions of the island. But as yet there are surprisingly few analyses of the depth and longevity of Newfoundland tradition. One of the most interesting manifestations of this tradition is folk architecture, a vital component of the material culture of the province. Since research on this topic has barely begun in Newfoundland it is appropriate to examine first the approaches of American and European scholars and from this literature develop a method for the study of Newfoundland folk architectural patterns.

Geographers have long considered the dwelling house as a basic part of human geography *(Brunhes, 1920: 74; Sauer, 1925: 46)* yet after several decades of paying lip service to its importance as a valid area for enquiry and after a substantial body of empirical studies, geographers have failed to develop a clearly articulated conceptual or methodological framework for such research. Architectural studies were initially introduced into geography by regional geographers who viewed the house as a component of the cultural landscape. Rarely was the house treated separately and in depth; rather it was regarded as just another element in the myriad traits comprising the region. Variations in regional housing patterns and styles were examined in terms of differing cultural and especially environmental factors. The complex interaction between culture and environment was poorly understood and environmental factors were usually given undue emphasis as determinants of forms and distributions.

From the mid-1930's a small number of American cultural geographers began to focus more exclusively on the rural architectural traditions of specific regions and to develop a distinctive methodology (*Scofield, 1936: 229-241; Kniffen, 1936: 179-193; Finley & Scott, 1940: 412-419; Spencer, 1945: 444-457).* Drawing on Sauer's concept of the cultural region *(1925: 19-53)* and from French and German geographers and American anthropologists who had heavily influenced Sauer's early work, these pioneer authors attempted to demonstrate the significance of the house as a diagnostic criterion for delineating "culturogeographical regions". As in most seminal work, there was little general agreement on approach. In an attempt to establish cultural geography as a more exact science, Scofield proposed an approach to the study of house types analogous to the method of biologists studying plants and animals through (i) establishing a typology of houses based on form and delineating stages in their evolution, (ii) mapping the distribution of each form, (iii) studying and interpreting

these distributions as indicators of cultural areas and landscapes *(1936: 229)*.Kniffen pointed out the problems inherent in any attempt to use a biological analogy in the study of cultural forms:

> Neither houses nor other cultural forms can be classified in a manner exactly analogous to that used by biologists. The biologist never finds the tail of a lion grafted to the body of a cow; the classifier of cultural forms has no such assurance *(1936: 180)*.

A genetic or evolutionary approach was basic to early geographic research and influenced the geography of folk architecture. Physical geographers such as Davis described the evolution of physical landscapes and established stages in landscape morphology. Similarly, Sauer *(1925: 19-53)* and Whittlesay *(1929: 162-167)* used a genetic approach when reconstructing past cultural landscapes and defined a sequence of stages in the occupance of a region. This concern remains explicit in most of the subsequent research on North American folk architecture *(e.g. Kniffen, 1936: 179-193; 1965: 549-577; Wilson, 1969; Pillsbury, 1970)*. Ideally, to study folk houses genetically one should determine the original form and then delineate subsequent stages in its development. The evolutionary sequence of a type is often best illustrated by the pattern of alterations to the original form. Pillsbury *(1970: 14-16)* has followed a genetic approach when reconstructing the evolutionary sequence of New England housing from a small one-storey cottage to a large two-storey gable front house and has illustrated how each successive stage is a logical structural development from the stage which preceded it.Kniffen *(1965: 558-559)* has proposed a somewhat different evolutionary sequence for New England houses but has failed to establish any clean genetic link between defined house styles. It is simplistic to argue, as Kniffen does, that a two-storey house with double gable-end chimneys evolved into a one and a half-storey central chimney house. Such change is too radical to be considered a logical structural development and indeed would be a retrograde step in the architectural pattern. Kniffen's diachronic approach is similar to that used by architectural historians who establish stages or architectural periods based on the introduction and general acceptance of new architectural styles but this is essentially a process of replacement of house types rather than the genetic development of a particular form. Indeed the very notion of distinct 'stages' in the development of house forms is usually treated in a simplistic and generalized manner. The house is composed of literally hundreds of elements or traits, and is probably in a continual process of transition, with individual traits, changing frequently. Only detailed investigations of individual houses over several generations can correct the impression of abrupt replacement implied in the theory of sequential stages.

In an attempt to broaden the scope of house type research, Kniffen proposed a more 'quantitative' approach similar to that employed by anthropologists such as Krober *(1935-38: 1-11)* and Wissler *(1929: 303-328)* in delineating cultural areas by studying the spatial distribution of numerous examples of a specific cultural trait. This emphasis was at least partially derived from his training under Sauer who was working closely with Krober in California. After collecting data on the external form of some 15,000 rural Louisiana houses through field observation Kniffen identified a number of basic types and plotted their distribution, illustrating the regional dominance of each type. The sweeping scale and superficial field method implied in this and other early research *(Finely & Scott, 1940: 412-419)*, which failed to consider the chronological sequence of house forms, or the impact of external contacts, resulted in little more than a numerical description of regional variations

and provoked more questions than answers *(Spencer, 1945: 446)*. As Spencer noted "One cannot adequately study house types at 30 miles an hour". However, it is important to discover as accurately as possible what percentage of the total number of houses is represented by a particular style during any given period. For example, Finely and Scott found that only 2.9% of some 3,000 houses surveyed were of log construction *(1940: 418)*, yet geographers have published considerably more material on log architecture than on houses built with frame, brick, or stone. General statements on form, size, and distribution for extensive areas are made after studying only a small number of examples and rarely is the adequacy of the data as a representative sample determined. In their study of New Jersey log houses, Wacker & Trindell *(1969: 248-268)* plotted the known location of 90 examples from newspaper sale advertisements but based their analysis of regional ethnic variations and patterns of diffusion on a much smaller sample, often no more than 3 or 4 houses, for which archival descriptions were available. Since much of the current research on folk architecture has focused on the remnants of eighteenth and nineteenth century houses it has been difficult to collect data on a profusion of examples. Archival sources rarely supply sufficient detailed data and researchers must rely on oral information and/or extant relict structures. Such methods should virtually preclude a macro-approach to the study of folk architecture at least until adequate research at the micro-level has been completed.

Wilson, in a study of folk houses in Northern Alabama *(1969)*, is one of the few geographers to try to establish an evolutionary sequence of house forms by carefully analysing detailed data on a relatively large number of folk structures. In all, 142 houses, comprising six basic types were recorded. Wilson delineated three distinct stages or generations in the development of the dogtrot house by correlating data on the size and date of construction of 48 examples. He then postulated a similar evolutionary sequence for the remaining five types, for which data were more sparse. Although most of the information is based on relict houses without using oral traditions to enlarge the data set, this research, combining a 'quantitative' and genetic approach, is more rigorous than other more descriptive studies, since conclusions are based on the analysis of a relatively large number of examples which reduces the possibility of eccentric structures being given undue importance.

It was not until after 1950 that American cultural geographers, following the example of their colleagues in Europe, emphasized the study of material folk culture or folklife and firmly established architectural studies as a valid and meaningful field of research. For several decades Swedish ethnographers, especially Erixon and his disciples, have studied the development and diffusion of a wide range of cultural traits, both material and non-material, in rural Scandinavia *(Erixon, 1938A: 263-294; 1938B: 137-172)*. The continental European literature on folk housing is extensive but problems with language and accessibility have restricted its usefulness to British and North American cultural geographers. Like Erixon's European research, the establishment of cultural hearths and the subsequent patterns of spatial diffusion of folk houses of old world ethnic groups in America has become the basic concern *(e.g. Kniffen, 1936: 179-193; 1965: 291-300; 1969: 1-8; and Glassie, 1966: 40-66; Wright, 1950; 1956; 1958: 109-117; Zelinsky, 1953: 173-193; 1958: 540-553; 1959: 14-20; Glassie, 1963: 5-14; 1964: 21-25; 1965: 21-30; 1965-66: 8-19; 1966: 12-25; 1968A: 338-370; 1968B; Gritzner, 1969; 1971: 54-72; Trindell, 1969; Wacker, 1969; 1971; and Trindell, 1969:*

248-268; Wilson, 1969; 1970: 22-25; 1971: 8-14; Pillsbury, 1970; Wilhelm, H., 1971: 15-25; Wilhelm, E., 1973). Geographers, especially Kniffen and his students, examine the spread of house types as an index of general patterns of diffusion in traditional rural America and as an index of the migration, adaptation and assimilation of European ethnic groups. Nuclear areas of folk housing are described for the seventeenth century seaboard colonies, European antecedents traced and subsequent diffusion through the United States examined. Almost all this recent research has been conducted at a macro-scale— the American South, Appalachia, or New England, for example, or studies of an individual state. Because these studies are conceived at a macro-scale the patterns of spatial diffusion postulated are usually highly generalized like those of the anthropologists and with few exceptions *(Zelinsky, 1967: 463-495)* cultural geographers have thus far failed to adopt or develop current concepts of diffusion research in geography *(Hagerstrand, 1952; 1967; Gould, 1969).*

Few geographers in America have adequately examined the European antecedents to support their arguments for cultural transfer from the Old World. The British and Irish literature, for example, indicate that Old World architectural patterns were dynamic and complex, facts rarely considered in the American literature. Consequently the correlations drawn between European ethnic groups and house styles in America are often simplistic and misleading. In an attempt to overcome the problems inherent in the macro-approach individual studies have focused on one facet of the architectural tradition of a region. Wright's early research *(1950; 1956),* for example, focused on the log cabin in the multi-cultural south and Gritzner *(1969)* further narrowed the focus by examining only the log house of a single ethnic group, the Spanish in New Mexico. Research has failed to stimulate a wide general debate on the goals and directions of the geography of folk architecture, and little debate on methodology. Apart from the use of the house as an index of ethnic migration and cultural diffusion generally, little that is new has been added to the methodology since Scofield's and Kniffen's early work.

Henry Glassie, a folklorist, who has worked closely with Kniffen, is one of the few writers to attempt a definition of the terms "folk" and "folk architecture" and has tried to conceptualize more clearly studies in material folk culture. Glassie has suggested that a "folk" object, including the house, implies that it is traditional and distinct from the larger popular culture *(Glassie, 1968: 1-32).* Although rarely explicitly defined, the term "traditional" usually implies that the methods of producing an object are transmitted generationally. Glassie's approach, while consistent with the general conceptual framework of European folklife research, is finely focused on traditional traits of distinct ethnic groups. More recently Glassie, and others *(Rapoport, 1969: 46-82; Zelinsky, 1973: 88-94),* have emphasized the psychology of production, where the psychology of the builder and the socio-cultural factors inherent in the design process are viewed as important factors in the understanding of form. Such an approach might encourage geographers to reinterpret the study of folk housing by placing new emphasis on process rather than morphology. Ultimately, the folk process of construction, if understood in terms of the psychology and the perception of the builder, his particular way of organizing his material, technology, capital and the sources of his design, may prove to be more fundamental in formulating a typology.

American cultural geographers have produced a large body of valuable literature on the rapidly disappearing folk architectural traditions of North America, but have generally failed to consider the broader contemporary housing landscape. With few exceptions, little attention has been paid by cultural geographers to urban housing *(Rickets, 1967: 211-238; Krim, 1970: 45-55; Barnett, 1974: 21-32)*, and large segments of the suburban and rural landscape have been ignored. Urban and popular housing styles were initially dismissed in the mistaken belief that they reflected rural styles *(Scofield, 1936: 239)* or because the complexity of urban centers was out of all proportion to the area they occupied *(Kniffen, 1936: 180)*. Folk architecture exists in symbiosis with popular styles. If geographers are to understand better the patterns of folk architecture, all structures must be examined.

> The house, old and new is still packed with information about the national ethos, the dealing between man and habitat, and the changing configuration of our cultural geography *(Zelinsky, 1973: 90)*.

Geographers studying architectural traditions have borrowed freely from cognate disciplines. The literature by American and British architectural historians is particularly relevant. It demonstrates a careful attention to structural detail, a broad knowledge of the chronological development of various construction techniques and a rigorous approach, using both archival and structural evidence, to the dating of individual buildings. Architects have also considered the environmental factors influencing house forms in a more comprehensive manner than most geographers *(Aronin, 1953; Rapoport, 1969: 83-103)*, and their professional training is reflected in a careful consideration of the structural implications of various construction techniques and inherent properties of a wide range of construction materials. Much of this research, however, has focused primarily on unique structures or buildings which were professionally designed and constructed by skilled craftsmen. The more traditional houses of the local community are viewed as essentially pre-architectural (*e.g. Gowans, 1964; 1966*). When architectural historians have considered traditional or domestic architecture *(e.g. Kelly, 1924; Kimball, 1932; Briggs, 1932)*, the emphasis has been on morphological description and temporal duration with little attempt at spatial, quantitative or ecological analysis. A major exception is the more recent work produced by the British architectural historians *(Fox and Raglan, 1951-54; Barley, 1961; Wood-Jones, 1963; Brunskill, 1970)* who have used a variety of techniques to reconstruct a comprehensive picture of change and adaptability in vernacular architecture. This literature is especially relevant to North America, since British architectural traditions constitute the basic antecedent forms for much of North American folk architecture.

In contrast to the bulk of research on folk architecture conducted by cultural geographers, this study is conceived at a micro-scale and attempts to describe and interpret the evolutionary sequence of folk housing in four villages in Trinity Bay, Newfoundland from the period of initial settlement in the late seventeenth century to the present century, when traditional housing practices declined. The four villages — English Harbour, Old Bonaventure, Hant's Harbour and New Perlican — were selected because they were suitable for the study of developing house styles over two centuries in a West Country culture area. More numerous extant examples of old houses and a rich local oral tradition on folk architecture were also important in their selection. The principal objectives of the study are (i)

to collect data on as many traditional houses, both extant and extinct, as possible in the four settlements; (ii) to establish a typology and delineate stages in the evolution of house forms in this area; (iii) to study the effect of architectural renovation on the evolution of existing folk structures; (iv) to establish the chronological range for each house type and analyse architectural persistence and change.

Archival sources on architecture for Newfoundland are sparse and to reconstruct the evolution of housing styles in an area one must rely on field inquiry. Oral tradition supplies some reliable date, but folk memory rarely extends past four generations and memories of an object as complex as a house can fade. It was difficult to obtain an detailed description of houses built before the nineteenth century. Local timber has always been the most important construction material, but wooden structures have a relatively short life span and it is rare to find houses over one hundred years old still standing. The availability of timber and the relatively modest size of most outport houses often made replacement of an old house a more attractive alternative than extensive renovation.

Over 70 informants were interviewed in all, some briefly, others over an extended period of time, and complete information gathered on 258 houses. Initially a field questionaire was used to record data on individual houses. Whenever feasible, informants were asked to walk around the community and to locate and describe each house remembered. Old photographs were also used to supplement and verify oral information.

The most persistent field problem was establishing accurate dates for the construction of a house. In only 5 cases was the date of construction of a house recorded in family documents. Structural evidence such as the size of window glass or the types of nails used indicated rough periods, but both windows and nails were often taken from older homes and reused in new house construction. Informants were often uncertain about dates before 1900. However, since the date of construction of a new house was often associated in the informant's mind with some event in the family history of the builder or occupants, records such as parish registers were sometimes useful in determining dates. For example, the construction of a new house was often associated with the marriage of the builder and the ability to recall the first child born in a house was widespread.

All of the houses recorded were measured, dated, and representative examples were photographed. Information was collected on the basic floor plan, construction techniques, chimney location, window and door locations, the pitch of the roof, appendages, and subsequent renovations. Ultimately all elements of a house must be recorded, but those elements which prove to be most persistent or least changing are considered most important by cultural geographers in establishing a typology. The following chapters will reconstruct the cultural and economic background of the peopling of the bay, and then describe each stage in the architectural tradition of the area.

CHAPTER II

THE SOCIAL AND ECONOMIC BACKGROUND TO FOLK ARCHITECTURE IN TRINITY BAY

The development of a folk architectural tradition in a frontier environment is affected by a wide range of socio-cultural, economic and environmental factors. Besides providing basic shelter, the dwelling-house reflects both the cultural background of the builder and his basic way of life. Basic life styles, however, evolve and develop over time in tune with changing social and economic conditions. The corresponding architectural traditions are best considered in the context of the ethnic and economic history of the region. Trinity Bay was settled by West Country Englishmen, mainly from Devon and Dorset, between ca. 1650-1850 *(Handcock, in preparation)*. Before 1750, however, there was only a trickle of immigrants into the Bay. Moreover, the resident population was unstable and expanded at an extremely slow rate. Only 7 families and 14 single men were recorded in 1675, employing 172 servants.[1] Unlike European immigrants in other parts of North America who had severed their ties with the Old World and were committed to establishing a new life for themselves in the colonies, the early Newfoundland planters were an integral part of a migratory West Country fishing enterprise. Many of these early planters after some years in Newfoundland eventually returned to England. The remaining immigrants and/or their descendants chose such sites as Catalina, Old Bonaventure, Irelands Eye, Old Perlican, Hant's Harbour, New Perlican and Heart's Content because of their proximity to the productive fishing grounds at the mouth of the Bay (Fig. 1). Permanent settlement during this period was further discouraged by a lack of females available as spouses for the large number of transient single adult males. For example, Balfour reported only 28 female servants at Trinity in 1764 compared to 1315 men servants *(Head, 1971: 265)*. By 1775, the small winter population numbered just over 200 families[2] and this number had increased to only 350 families by 1801.[3] However, virtually all of the contemporary hamlets in the outer bay area were established by 1800.

The basic research on the Old World background of the early English settlers in Newfoundland has barely begun. It would appear, however, that the large number of immigrants who arrived in Trinity Bay after 1800, came from a restricted source area in the South-West of England (Handcock). Most of these immigrants arrived, not as settlers but as transient labourers. They were young, single adult males often indentured for two summers and a winter to work for one of the West Country merchant firms or for a local planter. Many returned home several times before finally making a commitment to settle permanently in the Bay. Both Devon and Dorset were predominantly agricultural but most of the land was held in large estates and farmed by tenants who relied on agricultural labourers. The conditions of these labourers had deteriorated steadily from the mid-eighteenth century. New farming technology and a general population increase created a surplus of farm labourers *(Hopkins, 1954: 63-66)*. The traditional practice of apprenticing the children of labouring class families to a farmer or village tradesman continued until the nineteenth century. The local economy, however, was unable to absorb the increase in labourers and young tradesmen and many had

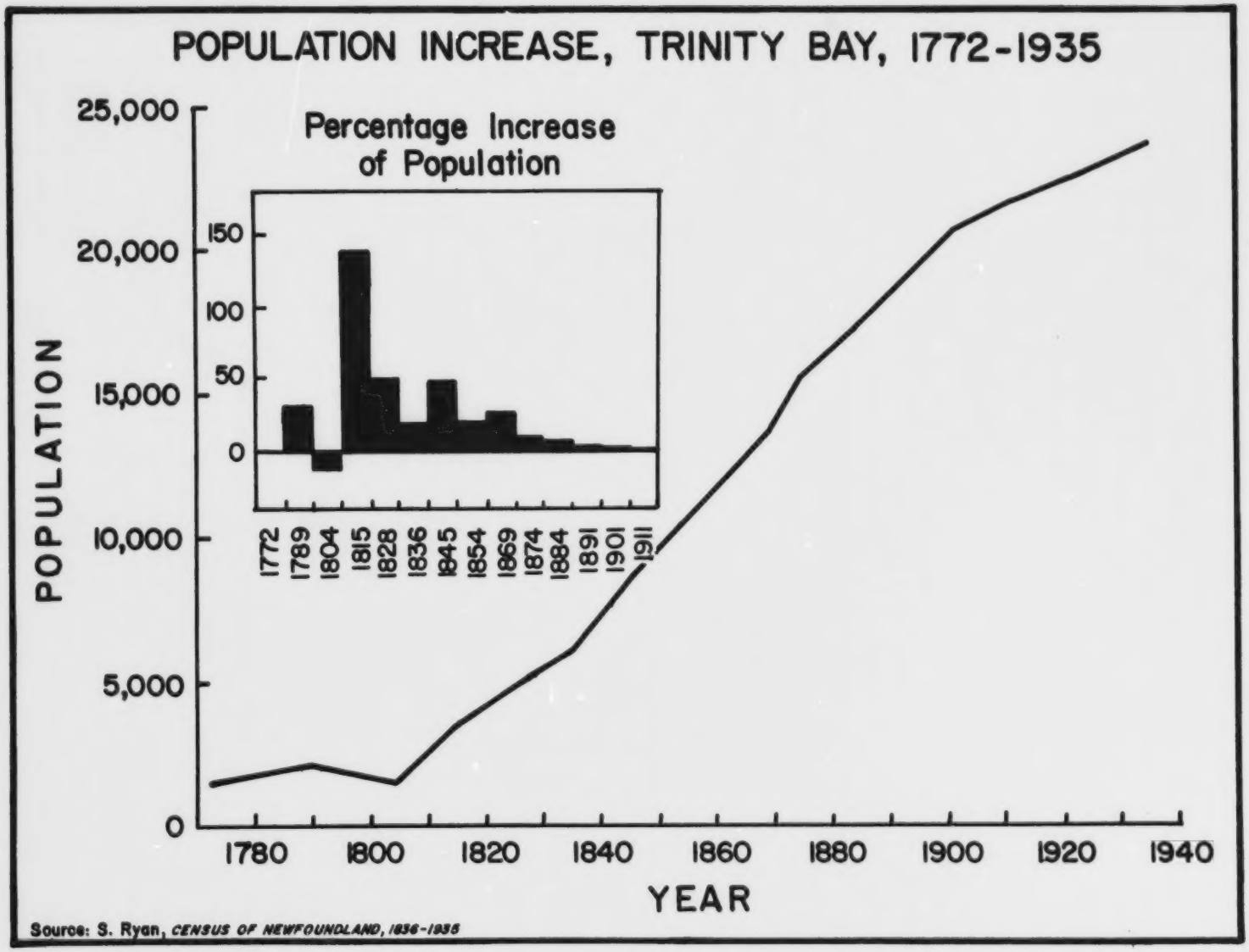
BONAVISTA BAY
N
Catalina
Melrose
English Harbour
Trinity
Old Bonaventure
New Bonaventure
Smith's Sound
Irelands Eye
Clarenville
RANDOM ISLAND
Random Sound
TRINITY BAY
Old Perlican
Hant's Harbour
New Perlican
Heart's Content
Heart's Desire
Bellevue
New Harbour
Chapel Arm
0 5 10 Miles
NEWFOUNDLAND

1

little choice but to seek employment in the industrial Midlands or to emigrate *(Kerr, 1963: 158-177)*. The West Country merchant firms actively recruited such young men for the Newfoundland fishery, and many of them found their way to Trinity Bay. These migrants had little or no experience as fishermen. Their early apprenticeship may have been with a local carpenter, cooper, blacksmith, butcher, tailor, textile worker, or in a host of other crafts. In Newfoundland those trained as carpenters or coopers might preserve their craft culture but the majority of recruits were employed in the summer fishery, in winter lumbering work and in boat building.

From the earliest period of settlement, the village of Trinity was the focal point of all economic activity within the Bay. The business firms at Trinity were mainly branch offices of West Country firms who employed migratory labourers to prosecute the summer cod fishery. They also supplied the small number of permanent settlers with basic provisions for the summer fishery in return for their fall production of fish and oil. Fishermen were often in debt, particularly when fish catches were low and there was little or no cash in circulation. Merchants also provided employment in the woods during the winter months, a period when traditionally Newfoundland fishermen have been under-employed. For example, Benjamin Lester, a Poole merchant, established a firm at Trinity in 1749[4] and was involved in the seal fishery, and in collecting and exporting the inshore cod catch. Lester's firm had its main office at Trinity but employed agents in various parts of the Bay to supervise the firm's operations. In 1804, a branch of the Slade firm, already operating at Twillingate and Battle Harbour, was established at Trinity in competition with Lester's *(Crewe, 1963: 3-9)*. Together the two larger firms dominated the Trinity Bay trade and their influence extended into Bonavista Bay. The *raison d'etre* of the commercial firms at Trinity was the cod fishery, but these firms were involved in the exploitation of other local resources, especially timber for ship building. George Garland, who succeeded Lester at Trinity, noted in 1810 that his master carpenter "seems to think ship building the foundation of the trade."[5] The Trinity firms required ships and schooners of various sizes to collect and export their fish. These vessels frequently required extensive repairs after arriving from foreign ports, stimulating a demand for suitable timber and a skilled labour force. Master carpenters were recruited in England and paid generous wages to encourage them to remain in Newfoundland. The importance of the ship building operation to a successful commercial enterprise in Newfoundland is perhaps best illustrated by the fact that in 1762, when Trinity was threatened by a French naval attack, the carpenters, with the women and children, were evacuated to Barrow Harbour in Bonavista Bay.[6]

Before they came to Trinity Bay, many of the West Countrymen had little experience working with wood. In the Bay, however, local timber became the dominant — indeed virtually exclusive — medium of house construction from the very inception of settlement, and winter logging often served as a useful introduction to the technique of working with wood. Besides for ship construction, timber was widely used for other purposes. The export of both salmon and seal and cod oil required thousands of large casks annually. It was common practice to employ a number of coopers in each of the firm's fishing rooms to make these casks from fir staves cut locally during the winter months. Wood was also required to erect and maintain the firm's business premises and for making boxes, for firewood, and for


POPULATION INCREASE, TRINITY BAY, 1772-1935
Percentage Increase of Population
150
100
50
0
1772
1789
1804
1815
1828
1836
1845
1854
1869
1874
1884
1891
1901
1911
POPULATION
25,000
20,000
15,000
10,000
5,000
0
1780
1800
1820
1840
1860
1880
1900
1920
1940
YEAR
Source: S. Ryan, CENSUS OF NEWFOUNDLAND, 1836-1935

dunnage used to secure the cargo in the holds of the ships. The Trinity Bay firms met these demands for lumber by supervising an extensive winter lumbering operation concentrated in the inner bay area.[7] This logging operation offered no conflict with the summer cod fishery and completed a yearly cycle of work which ensured the viability of the permanent settlement during this early period.

From the outset, men from all parts of the Bay were employed in the woods. Some received their orders directly from the firms at Trinity or indirectly through their agents in smaller communities such as Hant's Harbour or New Perlican.[8] Others operated independently, moving to various parts of the Bay in the late fall to cut firewood and to saw logs which would later be used for boat building, house construction or general maintenance.

Involvement in the logging industry, whether by private individuals or by mercantile firms, necessitated a seasonal movement of people from the permanent settlements at the mouth of the Bay into winter lumber camps, or tilts, usually located in the inner Bay area where large stands of timber were available. Hunting and trapping were also an important part of this winter work. Balfour, a missionary for the Society for the Propagation of the Gospel wrote in 1764 that the inhabitants of Trinity

> ...are obliged to go some one way some another, and some to great distances off to build huts and reside in the woods until the last of April or May ... [They] dissipate through the woods for subsistence on venison Hunting and for getting fire wood and building boats with their servants [Head: 268].

Many of these temporary logging sites in the inner Bay were occupied permanently in the nineteenth century.

Trinity Bay received a major influx of Englishmen between 1800 - 1830. The permanent population of the Bay jumped from 1,525 in 1804 to 3,427 in 1815 *(Ryan, 1971: 241)*, an increase of 130 per cent, and continued to increase at a rapid rate until after 1875 when the rate of increase declined to 8 per cent per annum[9] (Fig. 2).

During the period of in-migration, society in the Bay was basically egalitarian, apart from Trinity which had a small social elite comprising English merchants, their agents and clerks, some clergy and a few government officials. The permanent winter population was predominantly English Protestant, both Church of England and Methodist, but there was also a large number of Irish Catholic servants employed in the Bay, some of whom settled. During the eighteenth century, however, there was considerable conflict between the Protestants and Catholics both at Trinity and in other out-harbours. Balfour wrote in 1764 that the four Protestant families and four Catholic families living in New Perlican were in "a state of war with one another" *(Head, 1971: 265)*. By 1836, a large number of the Irish had relocated to other parts of Newfoundland or to such small communities in the Bay as Melrose, Turk's Cove, Bellevue or Heart's Desire, which remained basically Catholic throughout the nineteenth century.

The majority of the settlers in Trinity and in the other outports were common fishermen who exploited a variety of local resources to provide for themselves and their

families. Besides cod, salmon and herring were caught in the spring and fall and small quantities were exported. Small gardens produced a yearly supply of such basic vegetables as potatoes, cabbage, and turnips and sufficient live stock was kept to provide milk, butter, and a variety of meat to supplement an otherwise monotonous diet of dried salt cod fish and wild game. Proficiency in a wide variety of household crafts was an essential part of family life. There was little ready cash to purchase goods. Trapping for fox, lynx, marten and beaver was also an important part of the winter work cycle. A similar dependence on local resources was also reflected in house construction, where the occupants were usually the builders and virtually all of the materials, with the exception of glass, nails and iron ware, were procured and prepared locally.

While the total population of the Bay as a whole continued to increase during the nineteenth century, it remained stable or even declined in some of the older settlements in the outer Bay area after 1860.[10] This decline was partly the result of a general out-migration of people to the North and West of the Island or to the inner Bay where there was a steady increase in population. Several settlements in Random Sound and Smith's Sound were initially settled after 1850 by people from Hant's Harbour and New Perlican.[11] Once established, these initial settlers acted as a positive attraction in encouraging others of their kin to follow. The reasons for this inner Bay movement are complex. By 1870 the older settlements were over-populated. All the better land, particularly the land with water frontage, had been claimed. Local forest resources, necessary for both firewood and property maintenance, were diminished. The introduction after 1880 of the cod trap[12] which required a fixed location or berth further limited the ability of the inshore fishery to absorb the natural population increase. Fishermen were being forced to go farther and farther from their own communities to find suitable berths and the increased distance led to decreased efficiency. The inner Bay area, on the other hand, was relatively unsettled. Good land, suitable for agriculture, was available. There were ample stands of good timber and the introduction of numerous water-driven saw mills after 1850 had demonstrated that lumbering might provide a viable alternative to a seasonal and often uncertain fishery.

With the withdrawal of the West Country firms in the mid-nineteenth century, Trinity ceased to function as a central place within the Bay. Local entrepreneurs became increasingly involved in a variety of economic activities. Small merchants, usually commercially connected to St. John's firms, became established in the larger communities. The ship building industry was expanded in Hant's Harbour, New Perlican, New Harbour and Trinity, providing winter and summer employment for cash wages. Locally owned schooners prosecuted the migratory Labrador fishery and, to a lesser extent, the Bank fishery. The construction of the Newfoundland Railway at the end of the nineteenth century provided new job opportunities, a ready market for lumber, and placed the inner Bay area on the main communication link crossing the island. As communication links improved and job opportunities became available in other parts of the Province, local traditions, including traditional house styles were slowly replaced by elements of popular culture. The following chapter will examine the evolution of the Trinity Bay folk house and in the final chapter the various factors which influenced the forms will be assesssed.

CHAPTER III

THE EVOLUTION OF FOLK ARCHITECTURE

In Trinity Bay it is possible to establish an evolutionary sequence of house styles involving four distinct stages or generations, the first preceded by a temporary dwelling called a Tilt. Stage one, or the first generation house, was a small one-storey cottage, with a loft. It persisted as the basic house type in the Bay probably from ca. 1650 to 1850. The last half of the nineteenth century was characterized by rapid change. The Trinity Bay house passed through three stages: a one and a half-storey saltbox, a full two-storey house with a peaked roof and flat rear extension and finally a full two-storey house with a low-pitched roof, the last truly folk house to be constructed in the area. Two main criteria are used in formulating this typology: (i) that each style was consistently built as a new structure; (ii) that older styles were enlarged to duplicate this new form. Each of the five house types found in Trinity Bay will now be treated in turn and the problem of possible antecedents for both the form and construction techniques will be considered in the following chapter.

The Tilt

All groups attempting to establish themselves in a frontier environment resort to some type of temporary shelter. In Trinity Bay, and elsewhere in Newfoundland, such structures were called tilts (Plate 1). The word "tilt" in sixteenth and seventeenth century England meant a small hut, or temporary shelter on a boat. *(O.E.D.:3323).* This latter reference may account for its popularity in Newfoundland, where fishing was the primary occupation. In other parts of North America, the equivalent form was usually called a "shanty", a word possibly of French or Gaelic origin. Whatever its etymology, the tilt was constructed initially by transient West Country fishermen to provide shelter during the summer fishing season. Younge described its construction by a group of Barnstaple fishermen on the Avalon Peninsula in 1662 *(p. 56).* Tilts were also constructed by the initial settlers to provide shelter while sufficient timber could be cut and prepared for a more permanent home. William Miller, who settled in Random Sound in 1857 wrote

> I have just completed a fine tilt near a small brook and while it lacks the comforts of home it will serve until John and I can cut sufficient timber for the new house which should not take long if God and the weather continues with us.[1]

Similar structures were used extensively by settlers during the winter months when they moved from their permanent homes to hunt, trap, cut timber and build boats. Anspach, writing in 1819, describes in some detail the houses of the common fishermen and notes that

> They [Newfoundlanders] call tilts temporary log houses which they erect in the woods to pursue their winter occupations. *(468)*

In 1836, Archdeacon Wix visited a logging camp at the bottom of Trinity Bay and recorded

1 A Tilt, near Trinity, ca. 1950.

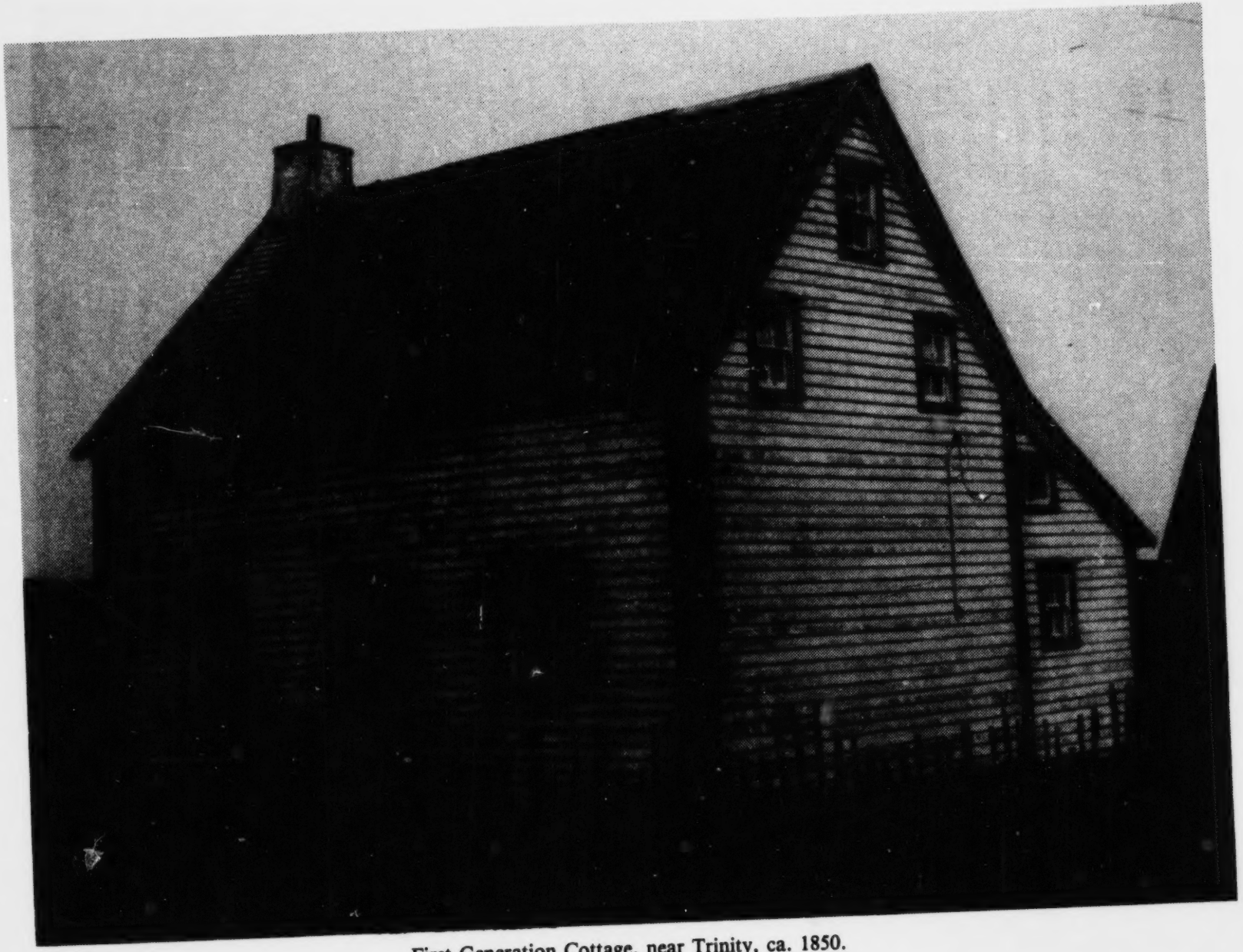
"70 souls chiefly from New Harbour for winter work" and held a church service in one of the 'tilts' *(p. 23)*. These tilts were temporary shelters erected by lumbermen; New Harbour was a well established community at this time, comprising 26 houses in all.

Because of their temporary nature, few tilts remain in the study area, and those still extant are of recent construction. There is, however, a strong oral tradition regarding the tilt. The structure varied somewhat in size and construction but did have some common characteristics. It was small, rectangular structure, perhaps no more than 10' X 14' on the ground and 5' to 6' at the eave, covered with a low pitched gable-end roof. Walls were constructed of vertically placed rounded sticks, abutting each other. Interstices on the log wall were stuffed or "chintzed" with moss, old rope or other materials. The vertical sticks forming the walls usually rested directly on the ground, but ground sills or logs were occasionally used. Tilts usually contained only one room and access was by a centrally placed front door, or by a door in the shorter gable end. The door itself was usually made of deal board and was hung on leather hinges and closed with a wooden latch. Windows, if present, were small and unglazed. In the nineteenth century, small windows were sometimes covered with greased paper and protected on the exterior by a rough wooden shutter. Heat was provided by an open fire on a hearth located at the end of the house. The smoke escaped through a hole in the roof. In some tilts crude wooden chimneys were constructed but this practice was not widespread in Trinity Bay. The roof was formed of logs or rough boards resting on a ridge pole and then covered with birch bark, old sail cloth, or any other suitable material. Tree branches were sometimes placed on the roof to encourage an accumulation of snow which acted as insulation against wind and frost. The quality of workmanship varied. Some tilts were extremely crude and were used for only a short period of time. Others were more carefully constructed and used by the same logging crews for several winters.

Jukes, an English geologist who visited Trinity Bay in 1840, describes an abandoned tilt which had "been occupied by a party the preceding winter engaged in boat building." *(p. 71)*. His description is in basic agreement with the oral evidence.

> This [tilt] was formed of trunks of trees placed upright on the ground close together, with larger ones for the corner-pieces, and a good strong gable-end roof formed of a frame of roughly squared beams. The corner pieces and beams were nailed together and the rest driven tight with wooden wedges wherever necessary. The interstices of those trunks which formed the walls were filled up with moss tightly rammed between them, and the roof was covered by long strips or sheets of birch bark, laid tile-like over one another, and kept down by poles or sticks laid across them. A space for a door is left in the middle of one side, and a fire-place is built up with stones and boulders against one end, over which is a space in the roof and some boards nailed together for a chimney. In this way a tolerable room, twelve or fourteen feet by eight or ten is formed, sufficiently compact to keep out wind and weather to a certain extent. *(69-70)*

Tilts persisted in Trinity Bay until the twentieth century because they provided adequate temporary shelter to migratory fishermen and permanent settlers when they moved from their homes for extended periods of time. They could be built quickly using local material, and easily abandoned when no longer needed. The tilt was the equivalent of a modern day tent, useful for temporary shelter, but hardly adequate or desirable as a permanent home.



First Generation Cottage, near Trinity, ca. 1850.

2

The First Generation House

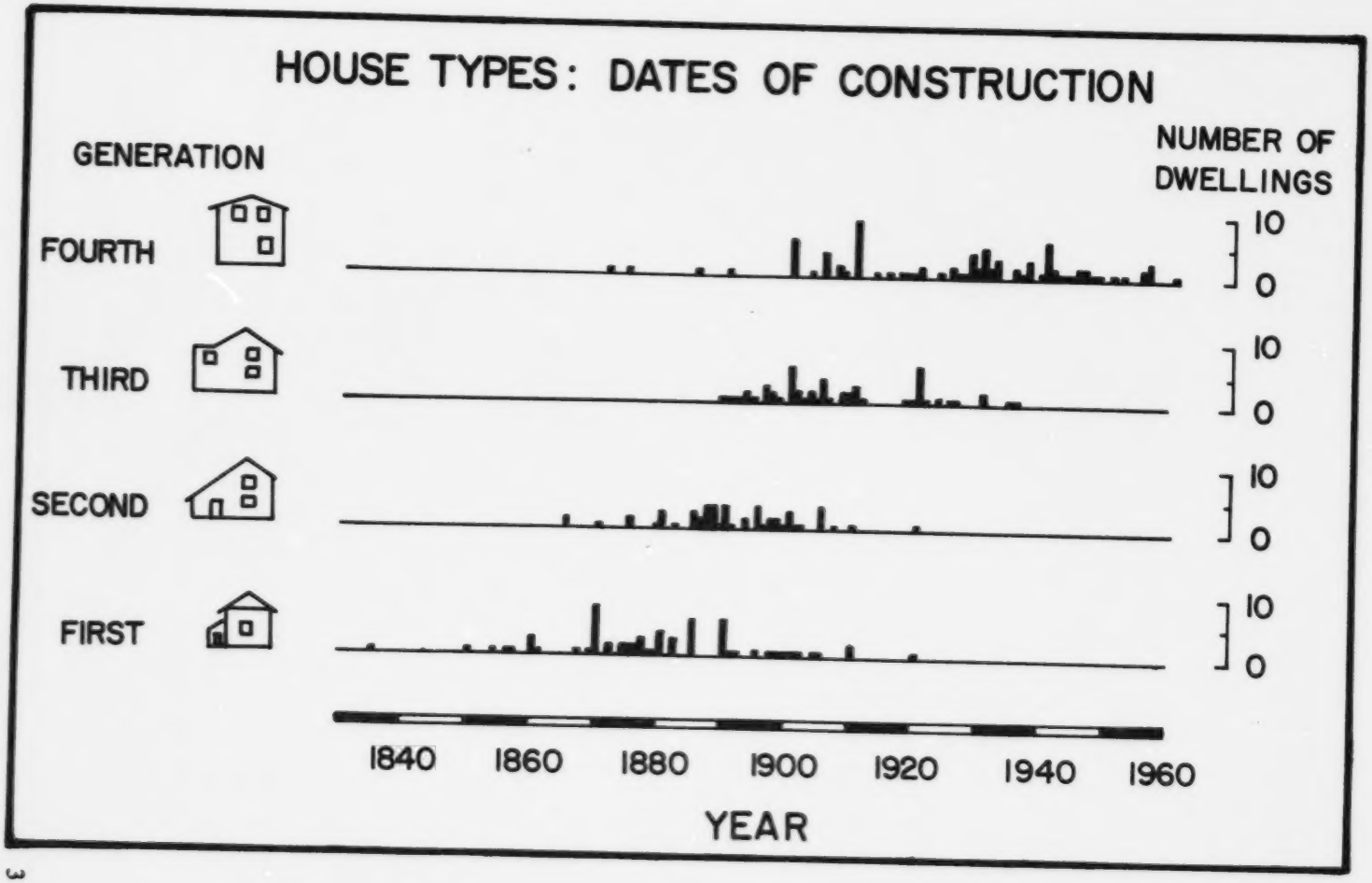
By 1800, there were some 1500 people in Trinity Bay[2] and at least 250 houses there. For more than a century these settlers had met the problems of house construction in a novel environment. Local factors such as climate and available building materials as well as changes in daily work and living patterns necessitated adapting English housing models to meet these new conditions and resulted in the development of the first generation Trinity Bay house. In a sense it marked the transition from the pioneer phase of settlement. Permanent settlers in the bay replaced the tilt with this structure as soon as they were able to. Moreover, this structure became the norm for a wave of new immigrants arriving after 1800. Many of these new immigrants were poorly prepared to deal with the new conditions. They had little experience in building houses or other structures in their homeland. Apprentices and farm labourers were either accommodated in the homes or outbuildings of their employers, or the latter employed appropriate craftsmen to build small cottages for them *(Barley 1961: 247-250; Kerr, 1964: 186-202; Brunskill, 1970: 164).* Without land or capital the poor were often unable to provide housing for themselves. Some labourers did build cottages of cob on small allotments or squatted on the commons, but they were a minority. In Trinity Bay, as in the homeland, housing for single men (by far the dominant group) was often initially provided by the merchants or local planters. After two or more years in Trinity Bay these recruits were familiar with local architectural traditions and, after making a commitment to settle permanently as self employed fishermen, readily accepted the style and process of building established by earlier settlers.

Field research has shown that in Trinity Bay the first generation house was a small single-storey, rectangular structure with a peaked roof and loft (Plates 2 & 3). The few examples of this house prior to 1860 reflect the problems of obtaining accurate data for the early nineteenth century. Numerous examples of this house type were recorded from oral descriptions in all four communities under study but were omitted from the data set (Fig. 3) because neither the date of construction nor accurate measurements were available.

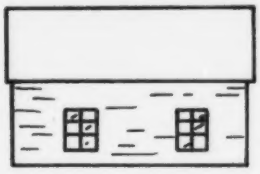
The first generation house was modest in size. Calculations based on 60 examples of this house dating from 1835 to 1920 reveal that they had a mean average floor area of only 672 sq. ft.,[3] a width of 21'8" and depth of 20'3". The front of the house contained three windows were more common. The rear door, entering the "linhay", was the most frequently windows were more comon. The rear door, entering the "linhay", was the most frequently used. The linhay, an appendage which extended the full length of the rear of the house, provided extra storage space and acted as an air lock preventing cold air from entering the kitchen when the exterior door was opened. The linhay was usually subdivided into two compartments, a porch with a door leading to the outside and a pantry with an entrance from the kitchen. The pitch of the linhay roof was identical to the slope of the main roof but there was usually a distinct break in the roof line, with the linhay roof abutting the rear wall of the house about a foot below the eave.

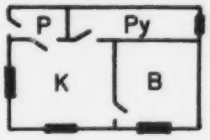
The floor space in the first generation house was divided into two rooms, usually a kitchen and a bedroom, although the second room was occasionally reserved as a parlour; children and unmarried males slept in the loft which was reached by a wooden ladder or by a

First Generation Cottage, near Trinity, ca. 1850 (Rear View).

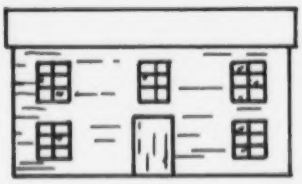

HOUSE TYPES: DATES OF CONSTRUCTION
GENERATION
NUMBER OF DWELLINGS
FOURTH
THIRD
SECOND
FIRST
10
0
1840
1860
1880
1900
1920
1940
1960
YEAR

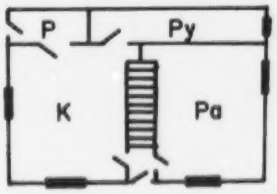
FIRST GENERATION. One storey with loft and linhay. 1835-1910



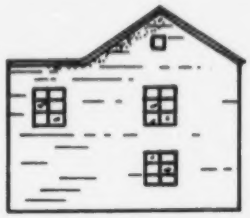


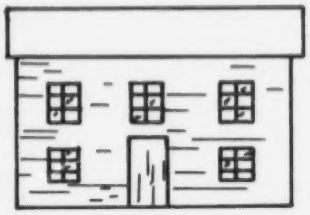
SECOND GENERATION. One and a half storey. 1865-1920

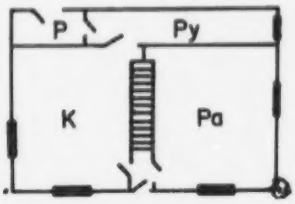




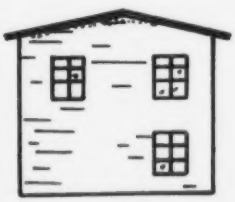
THIRD GENERATION. Two storey, full upstairs. 1880-1935

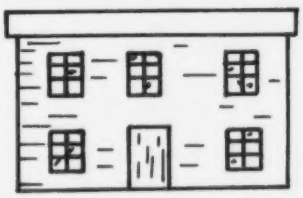


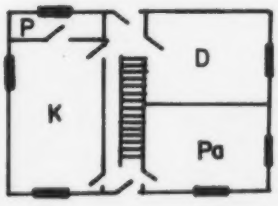




FOURTH GENERATION. Two storey with central hall and flatroof. 1870-1960







Py - Pantry
Pa - Parlour
K - Kitchen

0 25
feet

P - Porch
B - Bedroom
D - Dining room

4

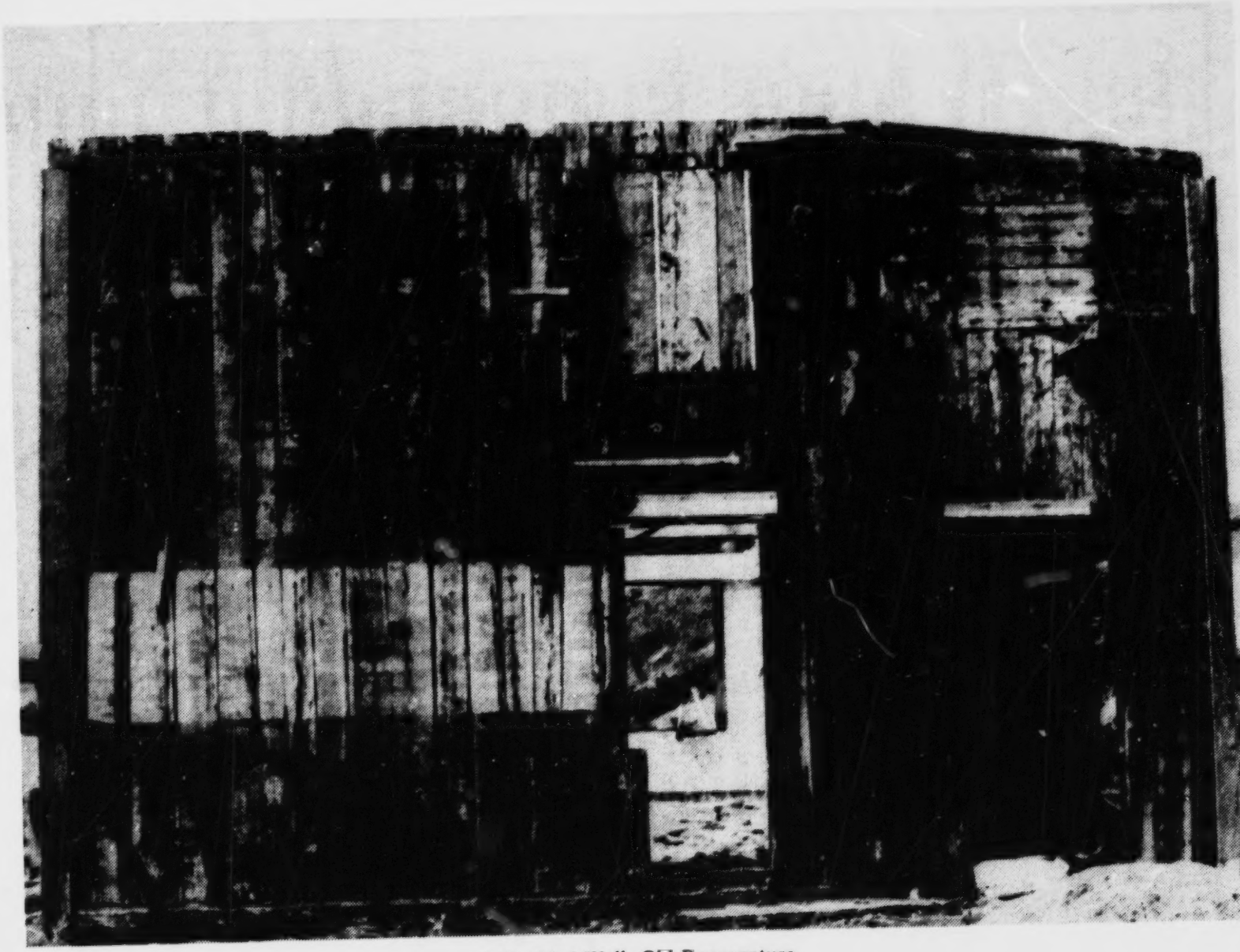
small enclosed corner stairway leading from the kitchen or from the rear porch. The floor joists of the loft were notched into the vertical studs and were sometimes placed three to four feet below the wall plate to increase head room in the loft (Plate 2). The loft area was lit by one or two windows in the gable end and was left open or was partitioned into two separate rooms by a light curtain wall of vertically placed 1" planks. Jukes described sleeping in a similar loft in 1839:

> I slept with several of the male branches of the family in a long, low, loft, extending the whole length of the house, with a range of narrow beds, or berths, along the wall on one side, and stores and provisions on the other. A little window at one end let in light, and a trap-door or hatchway in the middle of the floor, opening into the kitchen below, let in air. *(55)*

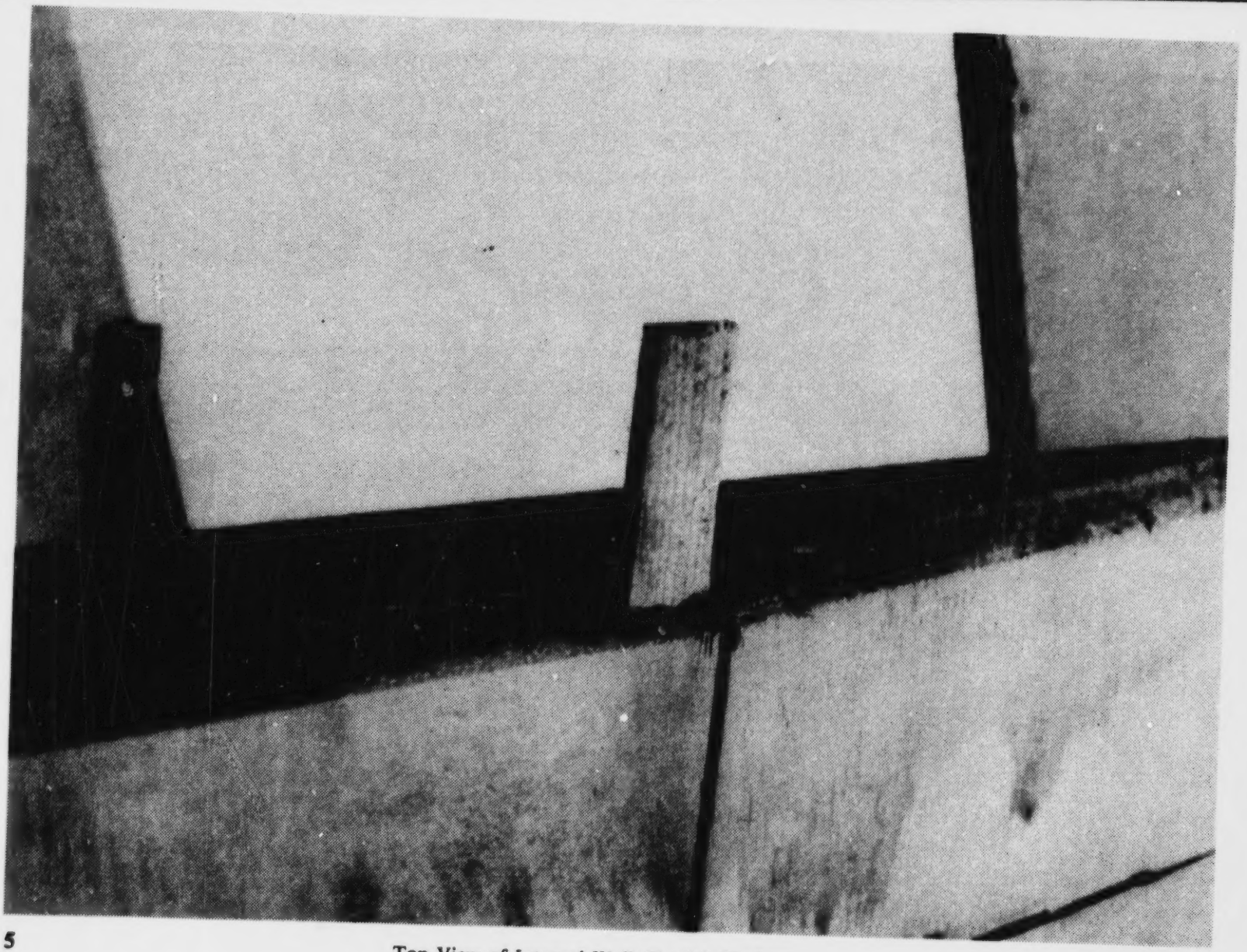
No definite pattern of chimney location could be established. Open fireplaces, while present in all of the earlier houses, were replaced by iron stoves after ca. 1865 — the first stove recorded was at English Harbour in 1863 — and chimneys were often replaced by stove pipes. Only four open fireplaces were recorded from oral information. They were located at the gable end of the house inside the exterior wall. Three were of local stone and one was built of imported brick. While no exact measurements could be taken, they appear to have been considerably smaller than the large fireplaces of Irish immigrants in the Southern Avalon *(Mannion, 1974: 149-151).*

The first generation house was constructed of local timber, either spruce or fir although pine was sometimes used for interior partitions, doors, and window boxes, or as flooring. The timber was usually cut with a pit-saw and shaped using an adze or an axe. These houses were either of studded or frame construction. Technically, studding is a form of frame construction for "studding" refers primarily to the method of filling in the wall space between the vertical studs of a frame structure (Plate 4). Vertically placed boards were ubiquitous in Trinity Bay until the late nineteenth century for internal wall construction. Boards were not tongued and grooved, however, but merely grooved on both sides and joined by a lath or spline running the full length of the board (Plates 5 & 6). In other examples the vertical members were merely abutted or joined by short wooden dowels. The external walls of studded houses were virtually identical in form to these interior walls, the only difference being the larger scantling of the exterior studs. Individual studs usually extended the full height of the house but were sometimes joined using a simple 'L' notch and nailed for extra strength. Usually every fourth or fifth stud was dovetailed or tenoned into the sill to form the frame and give the wall stability (Plate 7). The remaining studs were either doweled into the sill or allowed to rest on top, forming in effect a wooden panel between the mortised studs. The studs varied in both width and length, depending on the timber used, but were usually 1½"-2½" in thickness. The interstices of the studded wall were chintzed with moss, old rope or wood shavings. Studded houses were usually clapboarded or shingled on the outside and sheathed on the inside with inch board.

Studding was the first technique of wall construction in Trinity Bay. Tilts were universally studded as were the majority of the first generation houses. The practice persisted on the north side of the Bay into the twentieth century but was not used for house construction on the south side of the Bay after ca. 1870. For example, of the 60 first generation houses recorded, 45 were of studded construction, the remainder framed. All of these studded houses were recorded either in English Harbour or Old Bonaventure on the north side of the Bay.

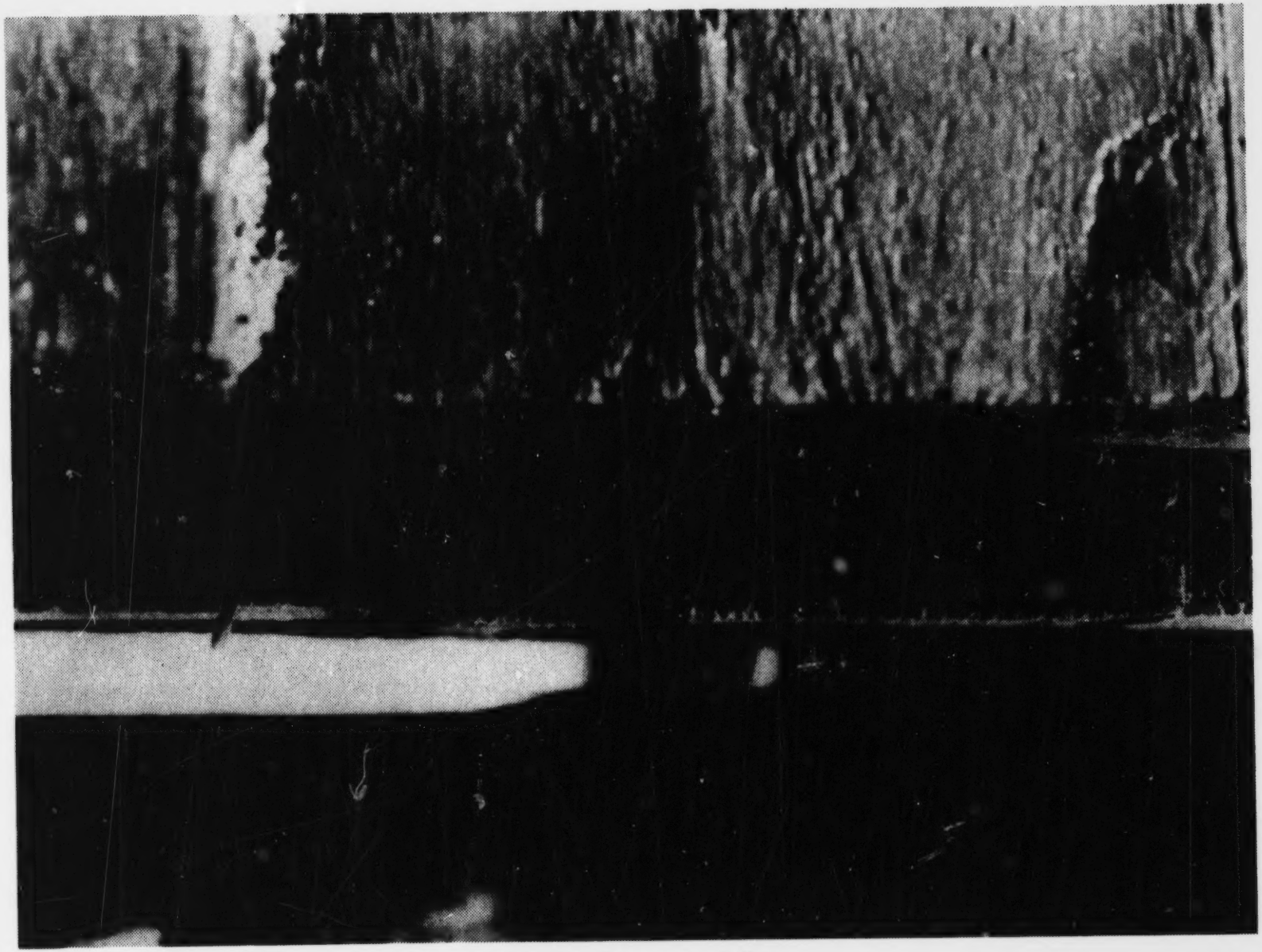


4 A Studded Wall, Old Bonaventure.



5

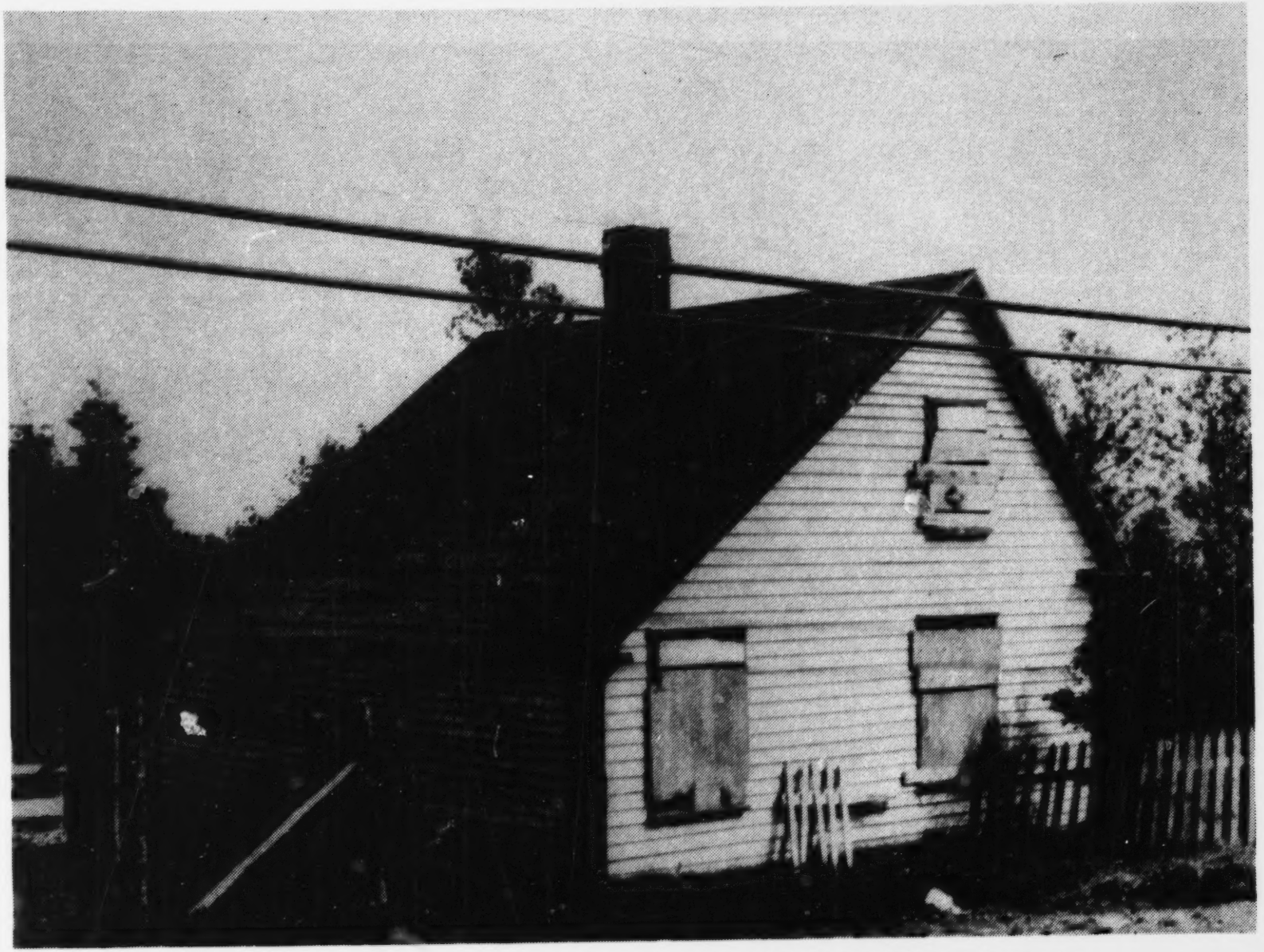
Top View of Internal Wall, English Harbour.



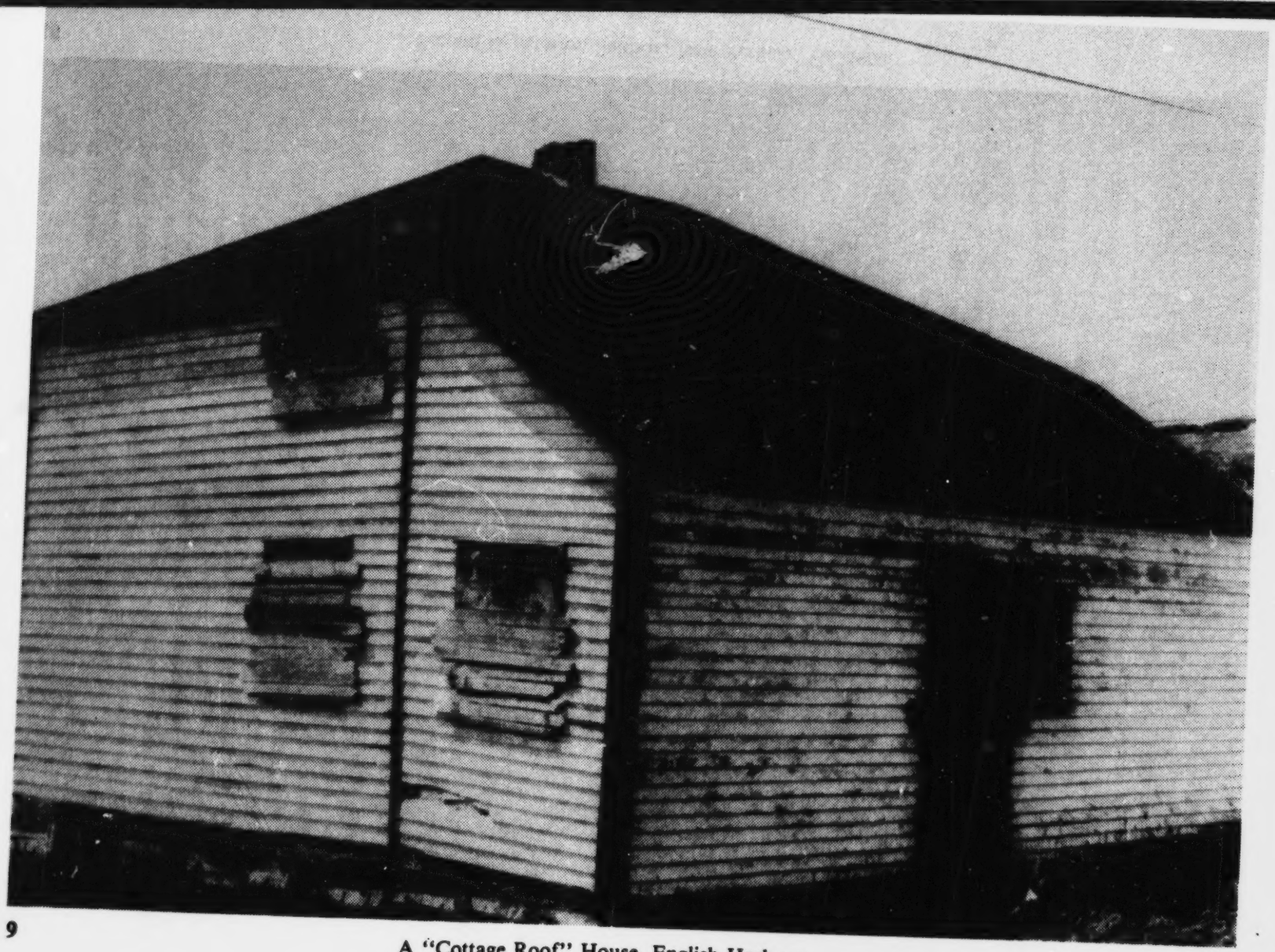
6 Internal Wall, Showing Spline.

7

Base of External Studded Wall, Old Bonaventure.

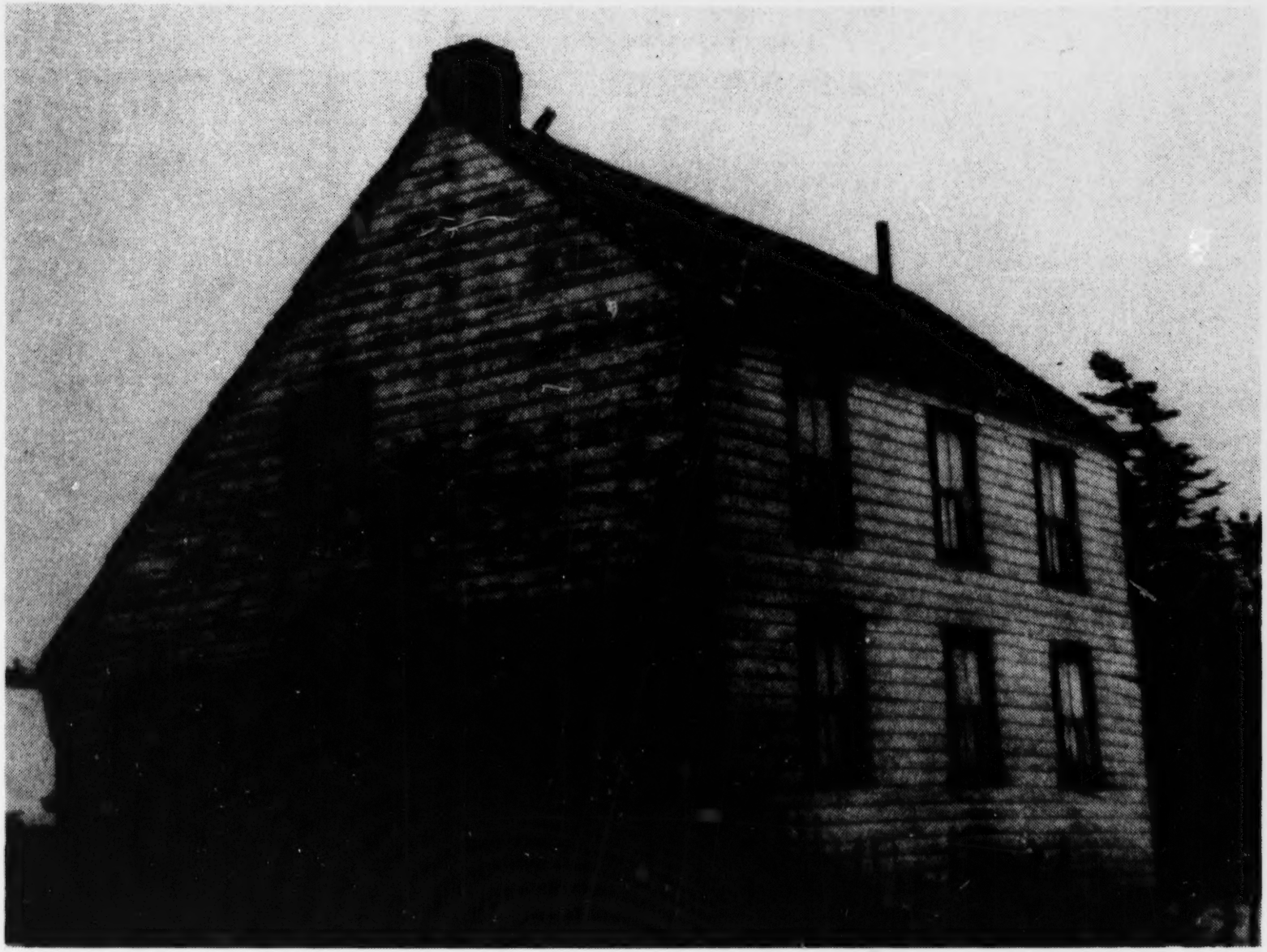


8 Cottage with Continuous Rear Rafters Similar to Those Found in Trinity. Carbonear, Conception.



9

A "Cottage Roof" House, English Harbour.



10 Second Generation Saltbox, New Perlican, ca. 1900.

Two variations of this first generation house were recorded. In the original house there was a distinct break between the main roof and the roof of the linhay but 4 examples were recorded with continuous rear rafters (Plate 8). The linhay as an appendage disappeared and the porch area became an integral part of the house, adding storage space on both the lower and upper floors. This roof line was a logical structural simplification in the construction of the first generation house and provides a clear link between the first generation house and the development of the second generation saltbox style. A second variation involved replacing the peaked roof with a hipped roof (Plate 9), a roof style found only in English Harbour where twelve examples were recorded. However, other examples were recorded outside the study area in Melrose and Catalina. It was known locally as a "cottage" roof, and while the earliest example recorded was constructed in 1864, oral descriptions of similar houses indicate they were common in English Harbour from ca. 1830. Although visually different from the peaked roof house, the floor plan and general dimensions were identical, and the cottage roof house subsequently passed through a similar series of morphological changes ending in a two-storey house with a low pitched pyramidal roof. The local popularity of the cottage roof house is difficult to explain. It was more difficult to construct than the more common peaked roof and, when covered with wooden shingles, subject to leakage where the shingles abutted on the four facets of the roof. It also reduced the living space on the second storey.

There are few contemporary descriptions of early first generation houses in Trinity Bay. Anspach, writing in 1819, provides a fairly detailed description of the "common dwellings" of the fishermen. His description is overgeneralized but it is basically in agreement with the first generation style in Trinity Bay.

> The common dewllings consist only of ground-floor, or at most of one story, and the materials, except the shingles, are the produce of the Newfoundland woods; the best sorts are clapboard on the outside; others are built of logs left rough and uneven on the inside and outside, the interstices being filled up with moss, and generally lined with boards planed and tongued. This filling with moss the vacancies between the studs to keep out the weather, is there called chinsing.... They have only one fireplace in a very large kitchen ... *(467-468)*

The Second Generation House

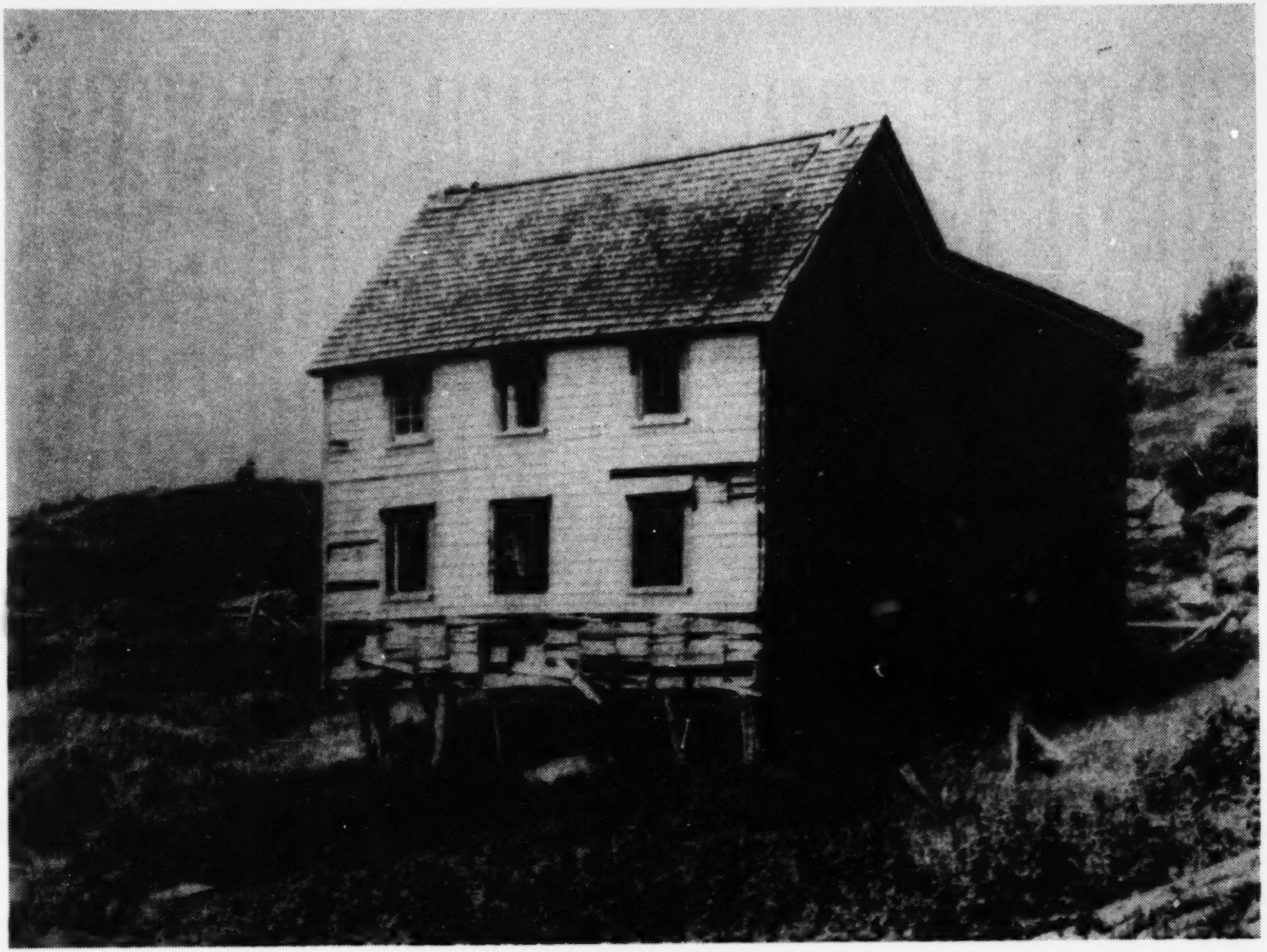
By 1860, the first generation one-storey house with loft had evolved into the second generation saltbox house (Plates 10 & 11). The saltbox was proportionately distributed in all four communities: 18 in English Harbour, 8 in Old Bonaventure, 19 in Hants Harbour, and 9 in New Perlican. Calculations based on 54 examples of this style dating from 1865 to 1920 indicate it was somewhat larger in size. The mean average floor area was 869 sq. ft. and had an average mean width of 24'9" and an average mean depth of 22'11" (Fig. 4). While the increase in floor space was not great, the second generation house was considerably more spacious. The house had higher ceilings in the ground floor rooms and the raised front wall allowed for two full size bedrooms on the second floor as well as two smaller storage rooms with sloping roof. The older examples of this saltbox had only one door which was located at the gable end of the house. This door opened into the back porch which was used as a storage area for firewood, water, and clothing and gave access to the kitchen. The kitchen was the

11 Second Generation Saltbox, New Perlican, ca. 1850 (Rear View).

most important room in outport houses and was used not only for cooking and eating, but for sewing, knitting, matting and a host of other domestic tasks. The kitchen was also the social focus of the house; friends and neighbours were entertained there. The parlour was used exclusively to entertain strangers or local dignitaries such as the clergyman, or for "laying out" bodies prior to a funeral. Later, a centrally placed front door leading to a small entry usually 4' X 4' was added, giving access to the kitchen and the parlour and to the staircase leading to the second floor. The front door, however, was rarely used and was often inaccessible, being several feet off the ground, with no step.

Fourteen examples of this second generation house were studded and 40 were of frame construction. In the Trinity Bay idiom, frame construction meant balloon framing as opposed to framing with heavy timbers (Plates 12 & 13). Balloon framing involved the construction of exterior walls using evenly spaced, light timber studs, usually 2" x 4". Spacing of the vertical studs was standardized at sixteen inches but in older houses it often varied. The earliest recorded use of this technique in Trinity Bay is 1870, but the workmanship was extremely crude. Some of the earlier houses, particularly merchant houses and stores, were of heavy frame construction but this earlier technique was not found in smaller folk houses. The relatively late introduction of balloon framing and the general lack of heavily framed structures give further evidence to the universal use of the studding technique in the earlier period of settlement.

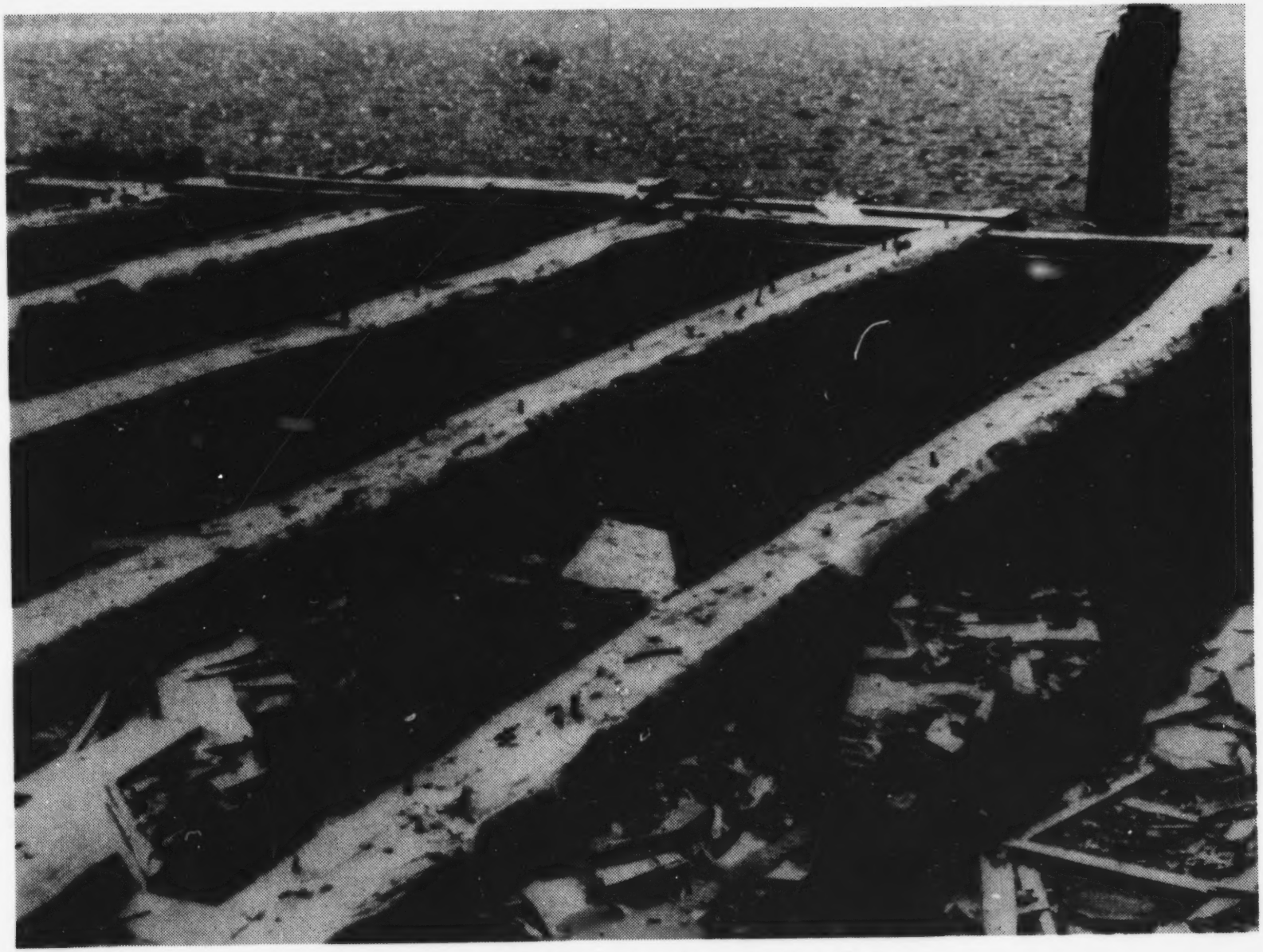
The construction of these early frame houses followed a set pattern. After a suitable site was selected, usually near the older family home, the foundation of the house was marked with wooden pegs and the sod was removed. Houses were usually orientated to face the water, but on particularly exposed sites they were sometimes arranged so the back of the house faced the direction of the prevailing winds. Houses were built as close to the ground as possible and rarely contained cellars. Ground posts were tamped into holes dug in the ground and were braced with rock fill. Larch was usually selected for posts because it is most resistant to moisture. The posts were often placed in pairs, with one post notched inward and one outward to hold the sleeper (Plate 14) which was laid on top of these posts. In the smaller houses there were only three sleepers at the front, centre and back, each squared on the top and bottom but left round on the sides and running the full width of the house. On top of the sleepers and running in the opposite direction, were the joists which carried the floor. The joists were made from smaller spruce logs, trimmed on top and bottom with an axe. They were affixed to the sleepers with 1" wooden "trunnels" (tree nails) which were hammered into holes drilled by an auger through the joists and into the sleepers. Trunnels were hand-made from pine or spruce. The floor was then laid on top of the joists with the boards running parallel to the front of the house. Floor boards varied in length but were usually joined on the centre joist. Pine flooring was preferred but not not always available. The sills were made of 4" x 4" spruce or fir laid directly on the joists. Usually, the sills merely abutted and were nailed to the joists. On the north side of the Bay, however, where studding persisted, corner notching was a common practice even after the introduction of frame construction and the vertical studs were tenoned into the sill. The second-storey floor was carried on joists affixed to the upright studs. The floor joists were 2" x 6" pine or fir plank set on two foot centres and ran the length of the house. They were covered on the top with inch board and left exposed in the ground floor rooms. Exterior walls were sheeted on the outside with inch board, then clapboarded or



12 Balloon Framing, near Trinity.

13

Wall Framing, English Harbour.



14 Foundation of Third Generation House, English Harbour.

shingled (Plate 15). Shingles were not often used because they were expensive to buy and time consuming to apply. Inside, the walls were sheeted with a double thickness of half-inch board with the seams overlapped. Exterior walls were approximately six inches thick and it was a common practice to place sawdust or wood shavings between the walls for insulation. When no insulation was used, there was a significant heat loss through these walls making framed houses more difficult to heat than studded houses. Interior walls, as noted earlier, were of vertical plank construction.

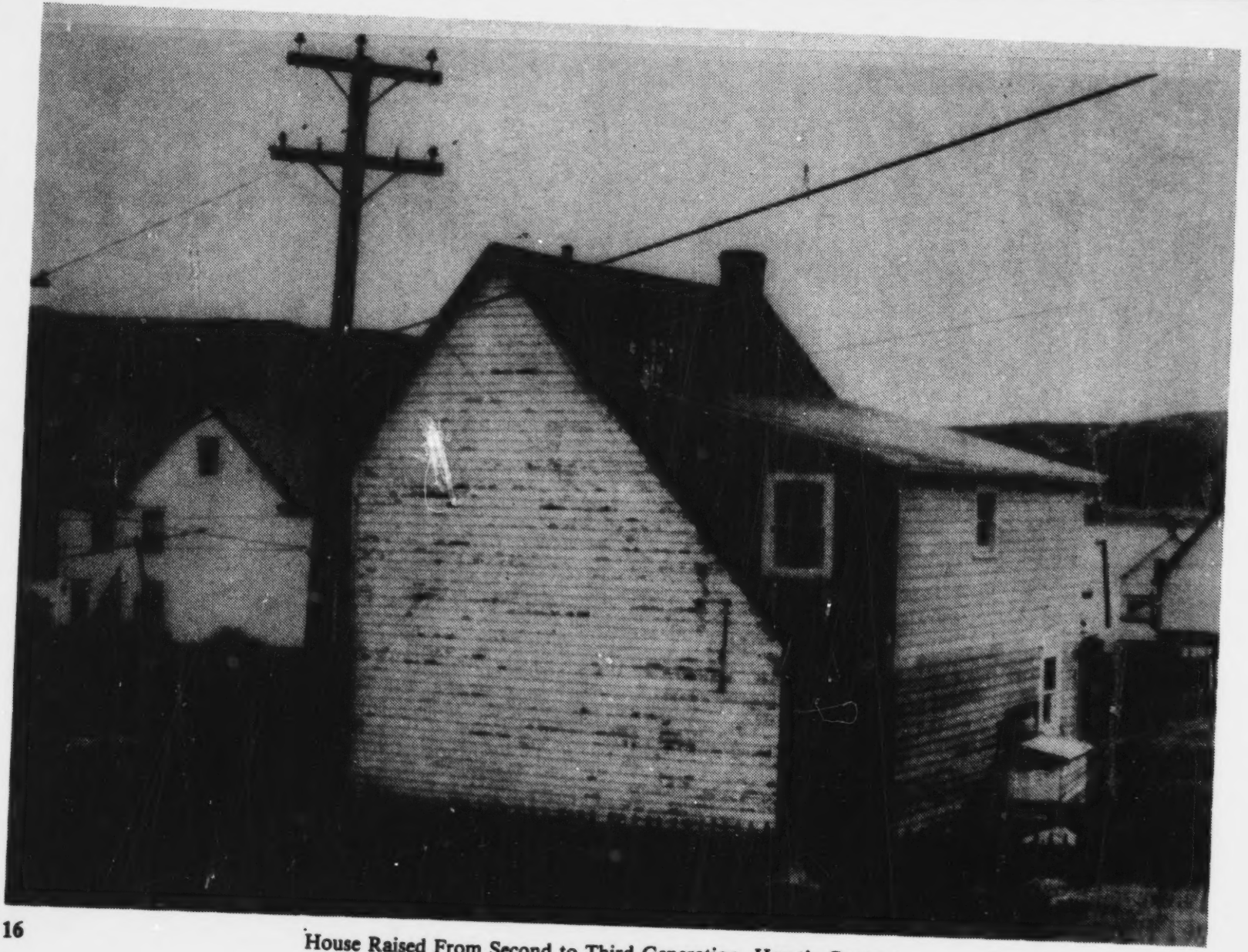
The roof rafters or "couples" rested on a wall plate, 1" x 4", nailed to the top of the upright studs. Rafters were not usually braced but were nailed where they abutted at the peak for extra strength. While ridge poles were usually used in tilts and in outbuildings, they were not generally used in houses. The pitch of the roof was generally "six on twelve" indicating a rise of 6' for a horizontal run of 12', though it was occasionally steeper. Rafters were sheeted on the outside with inch boards placed side by side and running horizontally along the roof, then covered with pine shingles 18" x 6" with a 9" - 13" overlap. The peak of the roof was covered with a saddle board, two long pieces of plank running the length of the ridge and nailed together into a V-shape.

If the house was to contain a chimney, it was built after the roof was constructed but before the interior work was completed. Two types of interior chimneys were recorded. The most common chimney or "tun" was of crude brick construction, usually 2' x 2' or 3' x 3', which rested directly on the ground floor at the centre of the house and extended approximately 2' above the peak of the roof. Stones were sometimes placed under the floor joists at this point to carry the weight. A second chimney type, common on the north side of the bay extended only to the ceiling of the second floor where it was connected to the stove on the lower floor by a stove pipe. However, stove pipes often replaced chimneys entirely in folk houses.

In the last quarter of the nineteenth century many first generation houses in Trinity Bay were enlarged to duplicate this saltbox form. Enlarging or "raising" a first or second generation house was a common practice. In all, 66 houses were raised to duplicate newer styles. The average age of the initial house at the time of enlargement was 40 years with a range from 15 to 75 years. Raising a house to a full two-storey structure, rather than extending it horizontally, had two major advantages: (i) the second storey increased the floor space significantly but did not enlarge the area of the roof, an important consideration when shingles were either difficult to make or expensive to buy; (ii) the second-floor rooms could be easily and economically heated from a stove the the lower floor (Plates 16 & 17).

The motives for raising a house are complex. The process may be viewed as a simple function of modernization and maintenance. After 40 years, most homes in Trinity Bay required major repairs, especially the roof which tended to sag and leak from exposure to the severe Newfoundland climate. When questioned about their motives for raising a house most informants replied that "the old roof was gone and we just raised her up while the roof was off." The fact that houses were usually raised when they were a little less than two generations old may suggest that it was the second generation inhabitants of the original house who made the decision to enlarge. In Trinity Bay, the youngest son traditionally inherited not only the family

15 Shingled House, Clarenville, ca. 1890.



16 House Raised From Second to Third Generation, Heart's Content.

17 Framework of Raised House, near Trinity.

home but also the responsibility of looking after his parents. This extended family arrangement placed considerable pressure on living and private space in a small home. Raising the old house may have been a conscious effort to increase living space without the expense or bother of constructing a new home. The reluctance of older couples to leave the old family home and to move into a new house further encouraged renovation and repairs. No significant correlation could be found between the number of children in a family and the process of house raising.

The Third Generation House

By 1890 the third generation house had developed from the earlier saltbox. It was a full two-storey structure with a peaked roof plus a flat rear extension (Plates 18 & 19). Fifty-six examples of this house were recorded dating from 1889 to 1935 (Fig. 3). The mean average floor area was 1106 sq. ft. and had an average width of 24'6" and an average depth of 22'1" (Fig.4).

To create this third generation house form the rear wall of the saltbox was raised 5' - 6' and covered with a flat roof abutting the main slope of the roof. Given the form of the saltbox, this solution to the problem of increasing the living space of the house was economical in terms of both material and labour. While it did not increase the floor space of the house it did make the third generation house considerably more spacious on the second floor which now contained four bedrooms and a central hall. Of the 53 second generation houses recorded, 16 were raised to duplicate this form.

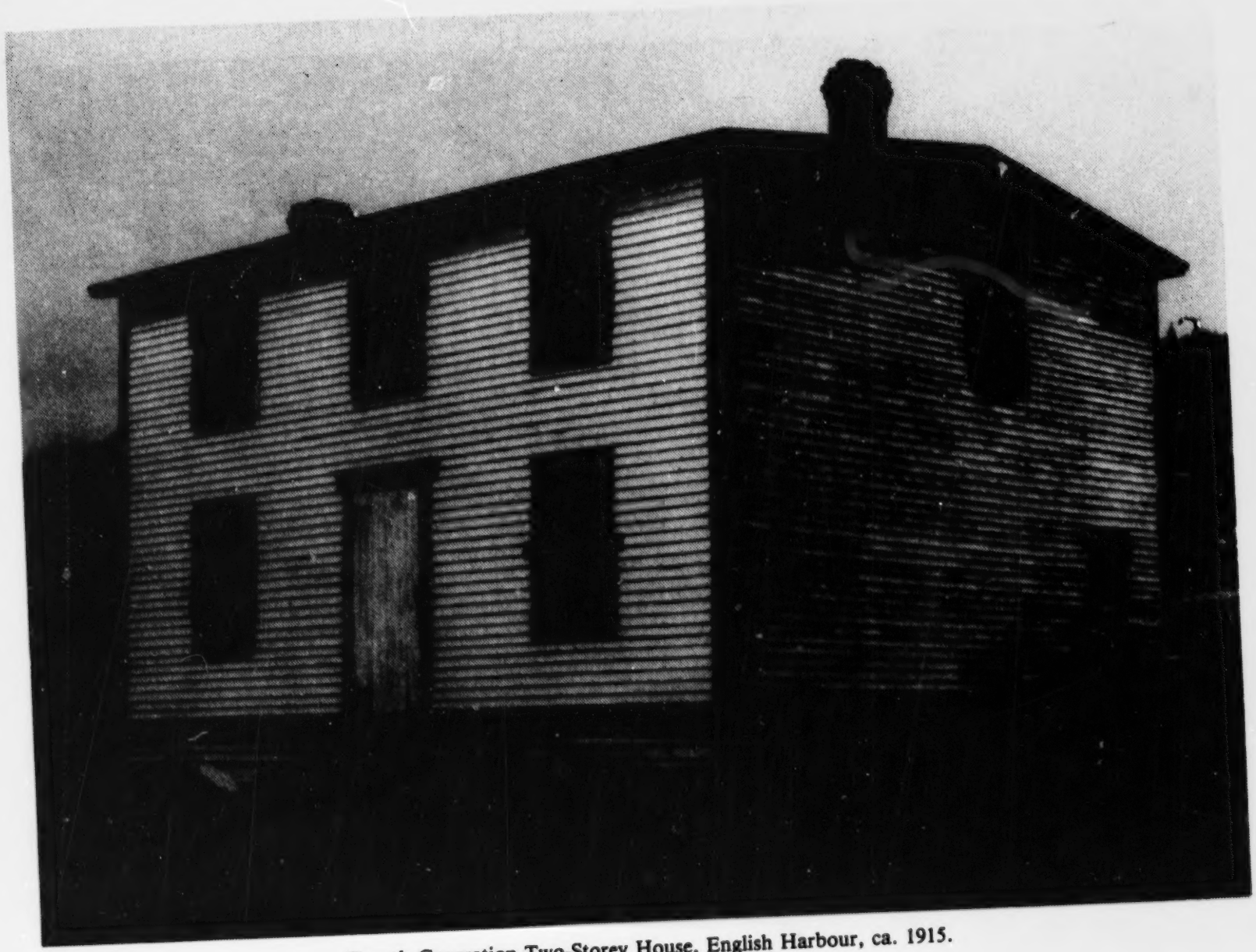
The plan did present some structural problems. The weight of the roof was now carried on a ledger beam which extended the length of the house and rested on the interior upright studs. The arrangement limited the size of the upstairs rooms by making it difficult to move interior partitions. It would have been impossible to develop this type of roof had not roofing felt been introduced to the area. The almost flat section of roof at the junction point with the peaked roof was difficult to keep watertight even with flexible felt. Shingles were totally inadequate for this rear section but continued to be used on the peaked section of the roof. In all other details the third generation house and the saltbox were similar.

The Fourth Generation House

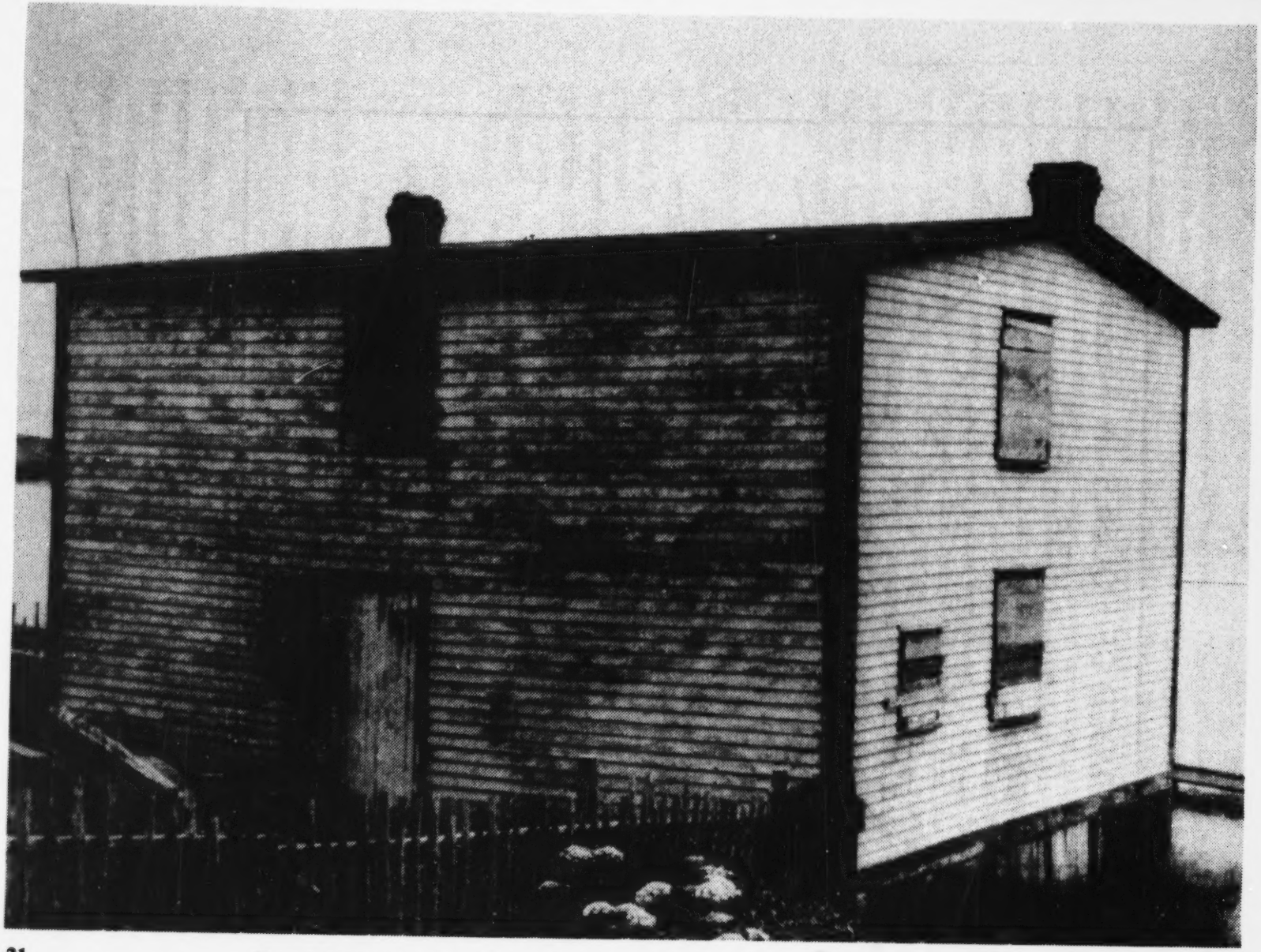
In an attempt to eliminate the structural difficulties inherent in the third generation house form a fourth house was developed and was popular in all four communities by 1900. This house was a two-storey, rectangular house with a central front door, five front windows, and a low pitched roof (Plates 20 & 21). The roof used less construction material than the older, more steeply pitched roof and was more accessible when repairs were needed. It was also less exposed to the wind. Eighty-eight examples of this fourth generation house were recorded dating from 1872 to 1961. Three examples of this house predated the first recorded third generation house. All 3 were recorded in Old Bonaventure and may represent early local development by an individual family. There is a strong local tradition in Old Bonaventure of

18 Third Generation Modified Saltbox, near [illegible]

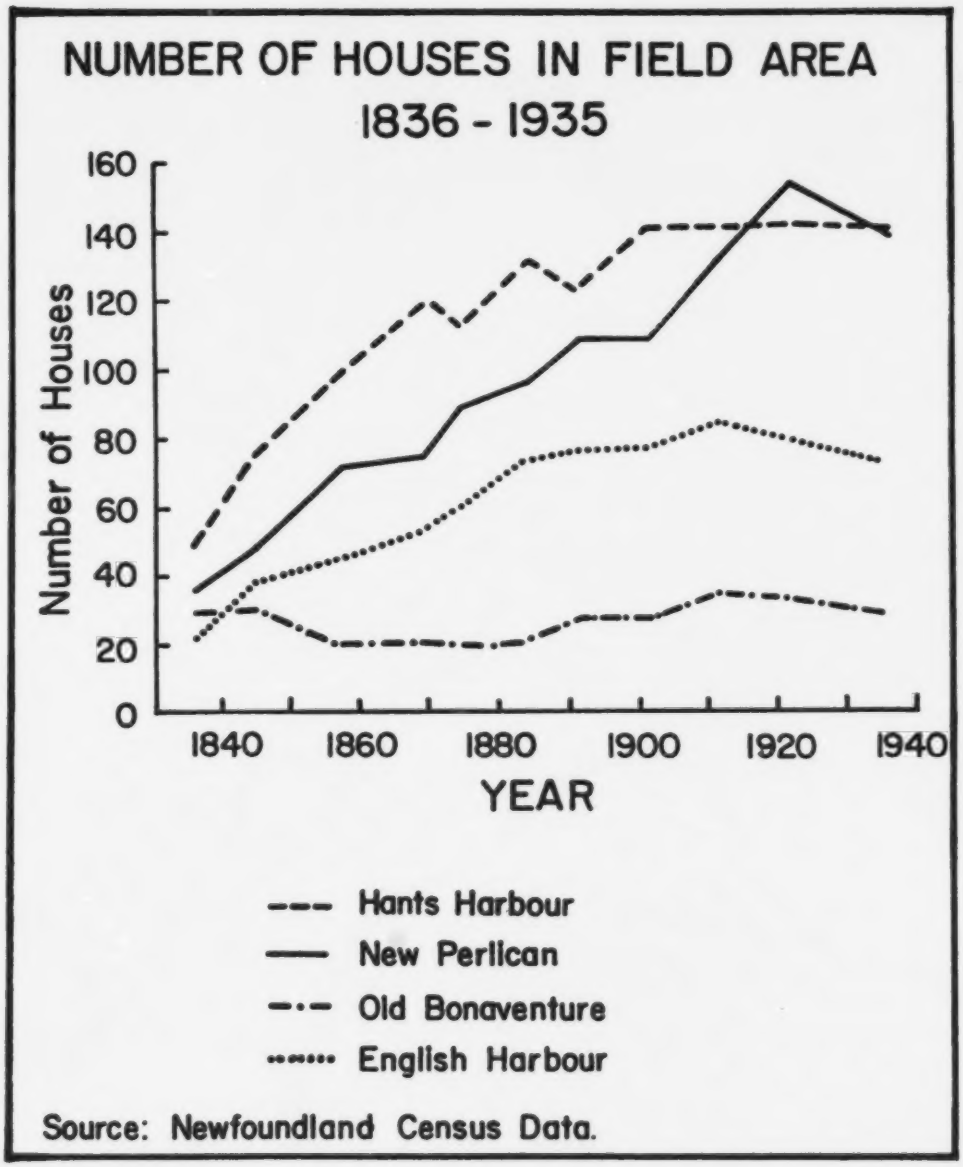
19 Third Generation Modified Saltbox, near Trinity, ca. 1900 (Rear View).



20 Fourth Generation Two-Storey House, English Harbour, ca. 1915.



21 Fourth Generation Two-Storey House, English Harbour, ca. 1915 (Rear View).


NUMBER OF HOUSES IN FIELD AREA
1836 - 1935
Number of Houses
160
140
120
100
80
60
40
20
0
1840
1860
1880
1900
1920
1940
YEAR
Hants Harbour
New Perlican
Old Bonaventure
English Harbour
Source: Newfoundland Census Data.

5

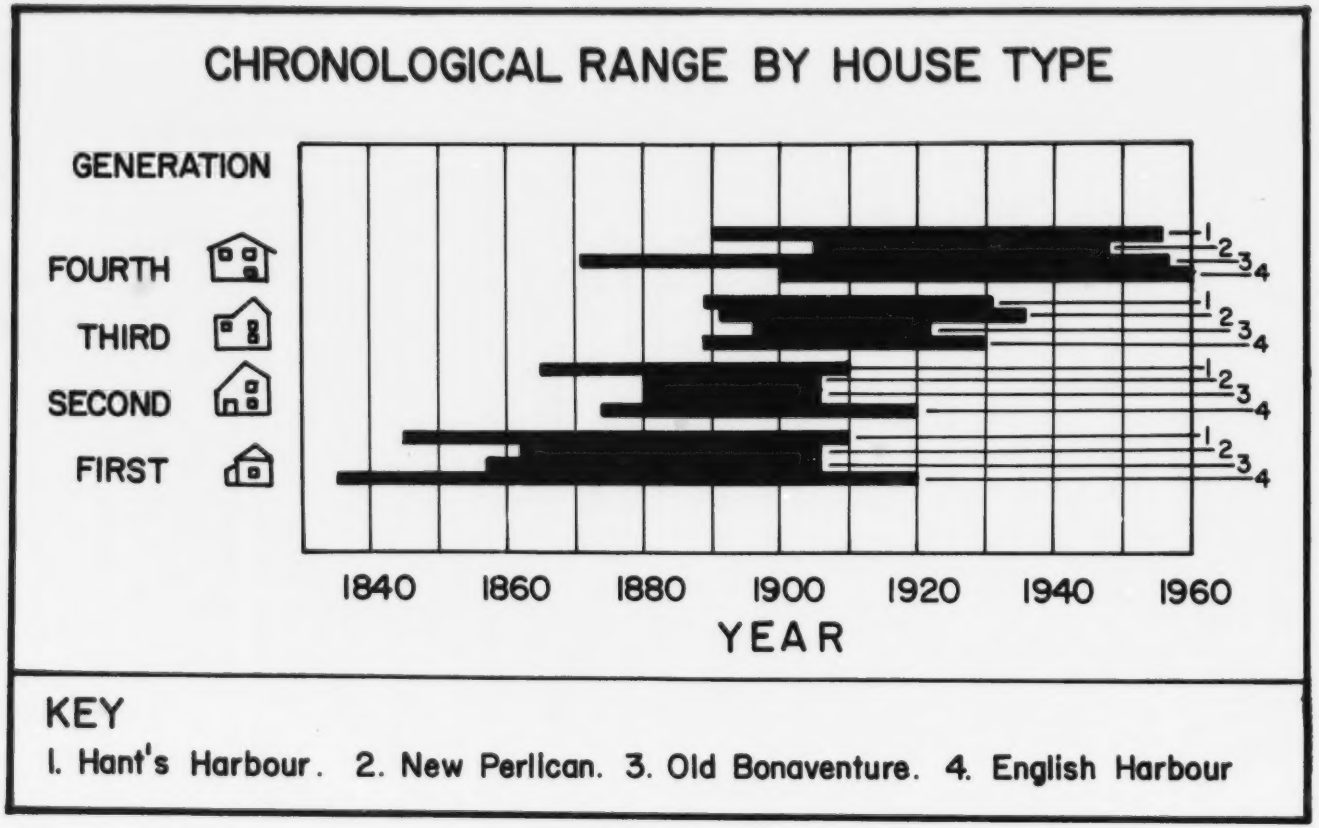
small houses built in the ninteenth century with "boat roofs". These roofs have no peak but are rounded from eave to eave. The style, however, was not widely accepted until ca. 1900 and is clearly a structural development from the third generation form. It was somewhat smaller in size than the third generation house with a mean average floor area of 1004 sq. ft. and average width of 24'3" and average depth of 22'2" (Fig. 4). A major innovation in the fourth generation house was the introduction of a central hall to the basic floor plan. Some third generation houses did have a central hall but this was not common in the older homes. The fourth generation house became ubiquitous in Trinity Bay after 1900 but declined rapidly after 1940 in favour of the popular urban inspired one-storey bungalow. Seven first generation, 20 second generation, and 24 third generation houses were raised to duplicate this form. Technically the third generation house was not "raised" although the term was usually employed when describing alterations to this house. It was reroofed but this did not increase the floor space or the height of the walls. Of the 25 examples of the fourth generation house constructed after 1940, 23 were originally second or third generation houses reroofed to duplicate this form. It was, in effect, a catching up process by those living in older houses to a style of construction which had already become obsolete.

Persistance and Innovation in Newfoundland Folk Architecture

Fig. 5 shows the number of houses recorded in each of the four communities between 1836 and 1935. The net increase in the total number of houses in each community is indicated, but there is no indication as to how many new houses were constructed as replacements for houses previously recorded. Nor do the census data provide any information on the size or style of individual buildings. Fig. 6, which was constructed from field data, indicates the chronological range of each house type. The terminal dates indicate the time of construction, not demolition, of a dwelling. When data for the four communities are aggregated, the four house types fall into definite construction periods.

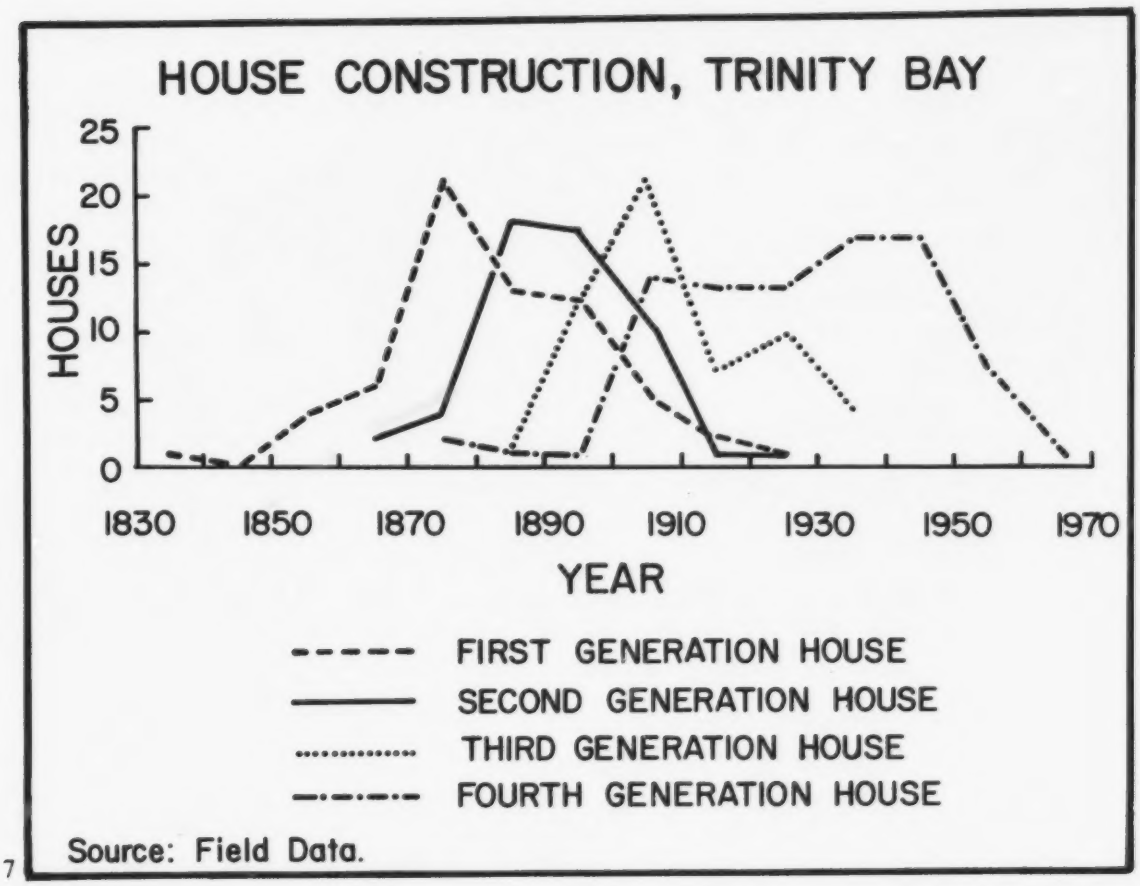
(i) First generation cottage	1835-1910
(ii) Second generation saltbox	1865-1920
(iii) Third generation modified saltbox	1890-1935
(iv) Fourth generation flat roof	1870-1960

Both oral and archival references such as Anspach's 1819 description of the common dwellings of the fishermen suggest that the temporal range of the first generation house extended back at least to the eighteenth century but there is no full description of these early structures for the pre-1830 period and they are therefore excluded from the data set. However, no other house type was recorded for the period prior to 1860 and it is likely that the first generation house was the ubiquitous style. Only in Old Bonaventure was the chronological sequence of house styles disrupted (Fig. 6). There the introduction of the fourth generation house — three examples in all — preceded that of the third generation by 25 years. This anomaly may simply reflect a lack of adequate data but it would appear more likely that it resulted from an early local development of this house style; the earliest fourth generation house in Old Bonaventure predated all recorded third generation houses in the study area. The date of initial acceptance and the ultimate displacement of each house style varied slightly


CHRONOLOGICAL RANGE BY HOUSE TYPE
GENERATION
FOURTH
THIRD
SECOND
FIRST
1 2 3 4
1 2 3 4
1 2 3 4
1 2 3 4
1840
1860
1880
1900
1920
1940
1960
YEAR
KEY
1. Hant's Harbour. 2. New Perlican. 3. Old Bonaventure. 4. English Harbour

from community to community as did the period of greatest popularity of any type (Fig. 7). With the exception of the first generation house, no style remained popular for more than 40 years. The fourth generation house, appearing as early as 1870, did not become widely accepted until 1900 and was not popular after 1940, being replaced by the contemporary bungalow. Twenty-five examples of this fourth generation house style were recorded after 1940 but 23 of them were renovated third generation houses. The date for the introduction and general acceptance of the first generation cottage in each of the four settlements is uncertain. However, the second and third generation house styles had diffused to all four settlements only fifteen years after being initially introduced to the area and the introduction of the fourth generation house style — with the exception of the three early examples in Old Bonaventure noted earlier — followed a similar pattern. The rate of acceptance and abandonment of a particular house style was affected by the actual rate of house construction in each settlement. The more rapid rate of house replacement on the south side of the Bay facilitated the general dominance of a new style over older styles. On the north side of the Bay the rate of house construction was considerably lower, consequently it took longer for the effect of a new house style to be felt.

It is difficult to establish accurately the actual rate of house construction during this period. For the period 1857-1921 the censuses record the number of "Houses now Building" in each census year. In the two communities on the south side of the Bay, Hant's Harbour and New Perlican, the average rate of construction was 12 houses per year in each community, as compared to 2.25 houses on the north side of the Bay. The more rapid population increase on the south side accounts, in part, for the higher annual rate of construction, but does not explain it entirely. For example, in 1884 Hant's Harbour had 134 houses and 23 "Houses now Building", yet in 1891 the total number of houses had increased to only 136, indicating that at least 21 older homes had been replaced in this seven-year period. The lower average annual rate of construction on the north side of the Bay suggests that individual houses may have persisted for a longer period of time before being replaced by a new home. The construction rate of 12 houses per year calculated for the south side of the Bay is very high. If this rate were maintained all houses in the community would be replaced in less than fifteen years. The meaning of the term "houses now building" is not defined and may include older homes under renovation. Certainly such a rapid rate of construction is not substantiated by actual field observation. While the introduction of new house styles occurred rapidly after 1870, there was considerable overlapping of styles between 1885 and 1905 particularly if one considers the actual building process (Fig. 7). During this period the first and second generation house styles declined in popularity but it was not until 1900 that the number of new third and fourth generation houses exceeded the number of houses constructed in an earlier style. Field data would suggest, however, that the area did experience a minor construction boom in the period 1880-1900. From 1884 to 1901, for example, the total number of houses in the four communities increased by only 31, yet 86 new housing starts were recorded in the field, indicating that the older houses were being quickly replaced by new and larger houses. The process of innovation and replacement in Trinity Bay architecture is complex. Archival and field data are useful in reconstructing past housing practices but offer little insight into the many social and economic factors which influence the individual decision to build a new home or into the design process. In Trinity Bay, however, it would appear that



Source: Field Data.

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social rather than economic factors were more dominant. A house was usually constructed by the owner with help from other members of his family and using timber which they cut and sawed themselves. The house represented a considerable investment in terms of labour, but the economic investment was not great. Certainly one could not explain variations in the second, third, and fourth generation houses in economic terms for all three houses were approximately the same size and required similar amounts of timber. Social pressure to construct a house in the latest style as well as a desire for increased living space made new house types more attractive and played a critical role in their initial acceptance and subsequent popularity. Such social factors, however, are difficult to evaluate especially for the earlier period of settlement and their exact role in the design process is not clearly understood.

The following chapter will consider the roots of folk housing in Trinity Bay and the effect of subsequent architectural development in both England and North America on local building practices.

CHAPTER IV

THE ROOTS OF FOLK HOUSING IN TRINITY BAY

Without detailed research into the architectural traditions of the source area of the immigrants, it is difficult to establish the antecedent forms for the myriad traits that comprise the folk house in Trinity Bay. Architectural development in the Bay in the eighteenth and nineteenth centuries was nevertheless deeply rooted in the English vernacular tradition. Clear parallels exist between local architectural traditions and those found in the west of England but there are also strong parallels with developments in other parts of North America, especially in areas settled by British people under fairly similar environmental and economic conditions. This chapter will consider the role of external and internal influences in the development of folk housing within the Bay as expressed in the exterior form, construction materials and techniques of construction.

Exterior Form

Tilts have been constructed in Trinity Bay and elsewhere in Newfoundland from the mid-seventeenth century as temporary dwellings by fishermen and by settlers engaged in trapping, wood cutting and boat building during the winter months. The rectangular floor plan, single room, gable-end hearth, and floor area were similar to crude cottages built in the west of England from at least medieval times to the eighteenth century by squatters and landless labourers in both Devon and Dorset *Barley, 1961: 249-50; Alcock, 1969: 103-4).* Whatever the formal parallels, however, it is difficult to establish that the West Country huts are linked conceptually to the Newfoundland Tilt. Both Old and New World structures were a product of pioneer expediency, and the similarity of such a basic form was probably more fortuitous than designed. Faced with the extreme demands of a frontier economy, the early settlers had little time to construct a permanent home before the beginning of winter. Nor were they familiar with environmental conditions or with local construction methods using wood rather than turf or cob. Tilts were quickly constructed using unprepared logs and required little skill on the part of the builder and few tools. As a result, most settlers adopted the tilt as a temporary shelter while they familiarized themselves with local environmental conditions, cleared land, and prepared sufficient timber for the construction of a permanent cottage. The similarity of tilts constructed by both the English and the Irish in Newfoundland in the eighteenth and nineteenth centuries would indicate that to a large extent it was an adaptation to environmental and social conditions rather than a direct cultural transfer from the Old World.

The Tilt was succeeded in Trinity Bay by a small one-storey cottage with a loft. Antecedents for both the basic form — including the rectangular floor plan, chimney location, window placement and steeply pitched roof — and construction techniques, such as vertical studding, shingling, and roof bracing, of this cottage are to be found in the West Country from at least the late medieval period and still survive there *(Personal observation, 1974).* However, local environmental conditions and the absence or unsuitability of such traditional West

Country construction material as cob, stone, slate, and thatch necessitated changing Old World practices to meet the conditions of the New World. Similar cottages were constructed by English settlers in the American Seaboard Colonies in the seventeenth century *(Shurtleff, 1939: Chapter 2)* and in the American Southern mountains in the eighteenth and nineteenth centuries *(Glassie, 1968: 351)*. Nor was the first generation cottage found in Trinity Bay unique to this area. Similar cottages were common in Conception Bay and in other parts of Newfoundland in the nineteenth century. In both the Old and New World such cottages were often enlarged by the addition of a lean-to or shed to the rear of the house. In Trinity Bay, these appendages are called 'linhays'. The addition of a lean-to was a traditional Old Country method of enlarging a small house in the seventeenth and eighteenth centuries (*Barley, 1961: 146)*. However, in the Old World the term linhay designated a separate farm shed used to shelter farm animals or tools *(Alcock, 1963: 117-130)*. The Newfoundland Irish, who borrowed the concept from the English, used the linhay to shelter farm animals, but there is no evidence that the linhay was used for this purpose by the English settlers in Trinity Bay (Mannion: 1974).

The immediate antecedents for the second generation saltbox house in Trinity Bay are difficult to establish. The form may have developed locally as a logical method of increasing living space in the first generation cottage. Certainly, many small cottages were enlarged in the ninteenth century. However, the wide distribution of the saltbox form, both in England and in America, would suggest that it was not wholly a local development. While identical in external form, the New England saltbox was usually much larger and reached its peak of popularity between 1725 and 1775, a century before the form was widely accepted in Trinity Bay. Pillsbury has suggested that the New England saltbox evolved from the two-storey garrison house *(1970: 25)* but this latter form had no counterpart in Trinity Bay. Moreover, the large central chimney characteristic of the New England saltbox was replaced by an iron stove with a small brick chimney or stove pipe usually located at the gable end of the house. The style was familiar to the new settlers arriving in the area after 1800 and similar structures were probably built at Trinity by carpenters for merchants and other professional people prior to the general acceptance of the form in the smaller outport settlements.

The third and fourth generation houses in Trinity Bay, when considered within the context of broader architectural development should perhaps be viewed as alterations to the basic saltbox form. The new roof lines did not increase the floor space nor alter the basic floor plan of these houses. The low pitched roof of the fourth generation house may have developed as a logical structural simplification of the third generation roof but it is more probable that this roof style was inspired by similar shed-roof houses constructed in St. John's in the last quarter of the nineteenth century. Similarly the Mansard roof, which was introduced into St. John's after 1870, diffused quickly to the outports but had little subsequent effect on the evolution of the Trinity Bay house (O'Dea: 1974).

Construction Materials and Techniques

Like their American counterparts, the first settlers in Trinity Bay immediately adopted native wood as the most readily available and environmentally suitable material with

which to construct their homes. In England, oak was the traditional material for heavy framing and this preference was retained in the American colonies (Kelley, 1924: 3) Oak was unavailable in Trinity Bay. The Newfoundland forest was predominantly stunted spruce and fir with a small amount of pine. While spruce and fir were unsuitable for heavy framing, they were ideally suited for vertical stud construction, particularly when used to construct small one-storey cottages. This may account for the reintroduction and subsequent persistence of this ancient construction technique in the Bay. Certainly, the stunted trees of eastern Newfoundland were less suited to horizontal log construction because of their small size, but the absence of this tradition in Trinity Bay is perhaps as much a reflection of the historic isolation of eastern Newfoundland from mainland North America where horizontal log walls were popular during the frontier era. Horizontal log walls were constructed on the west coast of Newfoundland by settlers from Nova Scotia (Personal field work, 1971).

From the initial period of settlement in Trinity Bay, vertically placed logs replaced mud, turf or cob as the exclusive walling method. The origins of vertical log construction in Newfoundland are uncertain. It may represent the reintroduction of a medieval English construction technique by fishermen in the sixteenth century or the technique may have been borrowed from the French who used a similar technique of construction, *poteaux en terre* or *pieux en terre*, elsewhere in North America (Kniffen and Glassie, 1966: 47). The most plausible explanation is that vertical timbering is an adaptation to the type of timber available for construction in Newfoundland. Tilts were generally constructed of unprepared round sticks usually set directly on the ground. In more permanent structures the vertical studs were prepared with an axe or pit saw and set into a sill. This construction technique is not unique to Newfoundland. Plank-frame houses constructed of vertically placed 1½" to 2" abutting oak planks in place of the usual studs were found in the seventeenth century American colonies (Kelly, 1924: 40-41), but the immediate antecedents for this construction technique are unclear. Kniffen states that

> Building with closely set vertical members is so widespread in America and so varied in detail as to suggest that any common origins must be in a remote European concept *(1966: 40-66)*.

In England, the older the wooden structures the more closely spaced are the vertical studs. In the eleventh century example of Greensted Church, Essex, the studs form a solid vertical wall of wood. While this technique had passed out of use for external walls before the sixteenth century, it was retained until at least the eighteenth century for internal room partitions. Boards were set up vertically on a sill, each tongued and grooved to fit into its neighbour, and was called clapboarding (Wood, 1965: 146). In North America, clapboarding referred to boards which are horizontally set; the English equivalent is weather board. It is possible that studding represents the adoption and adaptation of this Old World interior construction technique to erect exterior walls in an area where wood was abundant and cheap.

By 1870, however, balloon framing had begun to replace studding as the normal construction technique for small houses. Balloon framing did not develop until after 1830 in the American seaboard states and was not popular there until after 1850 (Kniffen, 1966: 40-66). Rempel gives a date of about 1880 for its introduction and adoption in Ontario (Rempel 1967: 115). This construction technique was used in Trinity Bay only twenty years after it

became popular in the United States and at approximately the same time as it was introduced into other areas of eastern Canada. It was probably first used in St. John's by building contractors, many of whom employed carpenters from the outports. The introduction of this technique into Trinity Bay was facilitated by the development of a viable saw-mill industry after ca. 1860 which made standardized 2" x 4" studs and 1" sheathing material readily available (Field research, 1971-72).

Other technological innovations were readily assimilated into local building practices. Iron stoves began to replace open fireplaces by the 1860's, only twenty years after this process became common in the Maritimes, and roofing felt largely replaced wooden shingles as the dominant roofing material not long after it became popular on the mainland. In the post-1875 period, communications in the area gradually improved. Local roads were upgraded and extended, mail and telegraph service improved and local newspapers and other mainland periodicals were more readily available. Many architectural innovations currently popular in the rapidly expanding urban area of St. John's appeared with increasing frequency in outport homes, and older folk ways were greatly altered by the more dominant popular culture.

CHAPTER V

SUMMARY AND CONCLUSIONS

This investigation has focused on the development of the Trinity Bay house from the period of initial settlement until the decline of the folk architectural tradition in the early twentieth century. While a traditional style of architecture did develop in the region in the nineteenth century, it was not wholly of local origin. The major influx of settlers — West Country Englishmen from a variety of occupational backgrounds — arrived in the first quarter of the nineteenth century. English vernacular architecture of that period was characterized by a variety of forms. Cottages were common in the homeland, but comprised only one facet of the English vernacular architectural tradition. Yet during the pioneer stage of settlement, the small, one- or two-room cottage was established as the almost exclusive house type in Trinity Bay. It is most likely that the early nineteenth century cottage favoured by immigrants was an imitation, not just of the West Country analogue, but of the style dominating Trinity Bay since the inception of permanent settlement a century and a half before.

No cultural group, however conservative or removed from the more dynamic popular culture, can remain completely static. As settlement in Trinity Bay developed beyond the frontier stage, new house forms were introduced. The small cottage developed into a one and a half-storey saltbox and then into a full two-storey house. While this development has strong parallels with the development of folk architecture in other parts of America settled by British stock, it occurred in Newfoundland at a much later date. The saltbox form was a common feature of English vernacular architecture and was introduced into the American colonies in the seventeenth century. Yet this form was not adopted in Trinity Bay until after 1850, when improved economic and social conditions created a desire for more living space in larger homes. Subsequent styles were equally utilitarian and could be adapted to pre-existing structures. In this way a regional style was maintained which reflected local environmental, social, and economic realities. The rapid changes in house morphology after 1860 were as much related to major changes in communications and the economy with the maturation of the frontier as to the diffusion of new ideas into the area. No style, with the exception of the first generation house, remained popular for more than two generations and the apparent longevity of many folk houses reflects the tenacity of individual structures rather than the continued popularity of a particular style of building. The traditional techniques of construction, however, showed great continuity from the earliest period of settlement. The owner was the builder and he cut and prepared his own timber, selected the site, and constructed the house with help from family and friends. The basic form of the house was known to all and only minor decisions of site, orientation, or exact size remained to be resolved. While a regional architectural style developed and was maintained in Trinity Bay, the area was not entirely unaffected by development elsewhere in North America and England. Technological innovations such as balloon framing, iron stoves, and roofing felt were readily assimilated into local building practices with little local resistance. The geographic location of Trinity Bay on the edge of North America is reflected by the time lag in the innovation-diffusion process.

From at least the mid-eighteenth century, elements of the popular architectural tradition were evident in the more elaborate merchant houses at Trinity, constructed by professional carpenters employed by the various firms. By contrast, folk architecture in the Bay was starkly utilitarian. Harsh environmental and economic circumstances militated against many architectural embellishments. The folk house had deep roots in the English vernacular tradition which was equally utilitarian. Changing economic and social conditions, available materials, the tools and expertise of the builder, all combined to produce a distinct regional style. Strength and utility rather than stylistic appeal remained a hallmark. However, by 1900 elements of the popular architectural traditions were becoming increasingly evident in the field area. The Mansard roof, which enjoyed great popularity in St. John's after 1850, became more and more common. Bay windows which extended the full height of the house, double windows, verandas, and off-set front doors were all incorporated into existing folk structures. The old emphasis on functionalism was replaced by a new emphasis on aesthetics, a desire to ape urban building practices, not always successfully. Built almost entirely from local material with local expertise, the traditional house was in harmony with its environment, was unpretentious and reflected the rapport between man and the land.

The modern, urban-inspired bungalow has completely displaced the traditional Trinity Bay house. Municipal water lines are now a greater factor in site location than the direction of the prevailing winds, local topography or a sight of the harbour. Modern work cycles have disrupted the traditional building process. Increasingly, outport homes are being constructed by professional carpenters, for the owners often lack both the time and the skills required to construct their own dwellings. The traditional outport house was ideally suited to a particular way of life and was both aesthetically attractive yet decidedly functional. While contemporary change is perhaps inevitable, it is nevertheless unfortunate that traditional house forms and folk skills, which have evolved over a period of three hundred years will ultimately disappear.

Architectural research by cultural geographers has focused primarily on the use of folk structures as a diagnostic tool in delineating culturogeographic regions or as an index of general patterns of diffusion in traditional rural America. Implicit in these studies is the idea that house types evolve over time but little systematic research has been conducted so far to analyze the persistence/innovation process or to isolate the many social, economic, and environmental factors which influence house designs. The macro-scale and superficial field methodology which place considerable emphasis on relict structures but which generally neglects to investigate the many local factors influencing the production of the object largely obscures significant regional variations. While the detailed study of material objects and of traditional construction techniques is basic in establishing a topology of house forms, it is only the first step in understanding the complex relationship between the needs and desires of the builder and the environmental realities within which he must operate. There is a pressing need in future geographic research for a number of quantitatively-oriented micro-studies to establish the depth and longevity of traditional folk practices and to examine the process of architectural innovation before regional variations can be adequately explained.

In this study, one is struck not so much by the tenacity of traditional house forms as by the rapidity with which these traditional forms evolved and existing structures were

renovated to reflect changing social and economic conditions. This study, while focusing on only four small outports belonging to one of the several cultural traditions existing in Newfoundland, suggests that future research should concern itself with rates of architectural persistence and innovation, especially among settlers of differing cultural backgrounds, and other factors such as family structure, the relationship between form and function and the effect of internal migrations on the diffusion of local house styles. Such basic research would provide a more complete understanding of traditional building practices and would throw new light on the general problem of persistence and innovation in folk architecture which may have wider application within the broader field of cultural studies.

A GLOSSARY OF ARCHITECTURAL TERMS

Chintze (chinking)

To fill up the interstices between vertical wall studs with moss, old rope, wood shavings or other suitable material.

Clapboard

In North America, a horizontally placed board, thinner on one edge, used to cover the sides of a house, each board being made to overlap that below it. In England, a series of vertical boards set upon a sill, each tongued on one edge, grooved on the other to fit into its neighbour (Wood: 410).

Cob

A building material made of unburnt clay mixed with straw.

Couple

A pair of rafters.

Curtain Wall

An enclosing wall not supporting a roof.

Deal Board

A thin board of fir or pine at least six inches wide.

Dovetail

A tenon cut in the shape of a reversed double wedge, to fit into a recess of corresponding shape.

Dowel

A headless wooden pin used to fasten together two pieces of wood.

Eaves

The overhanging edges of the roof of a building.

Frame Construction

A structure of timbers, including sleepers, joists, sills, vertical studs and rafters, etc. connected to form the skeleton of a building.

Gable

The triangular upper part of the wall at the end of a ridged roof.

Hipped Roof

A roof with sloped, not vertical ends.

Joist

One of the parallel timbers extending from wall to wall or to an intermediate beam to support the floor boards.

Lath
A thin, narrow strip of wood.

Linhay (Linney)
A lean-to shed or porch attached to the rear of a dwelling house.

Pit Saw
A large saw with handles at the top and bottom for cutting heavy timber.

Rafter
One of the beams which give slope and form to a roof, and support the outer roof covering.

Ridge-pole
A horizontal timber at the ridge of a roof, to which the rafters are fastened.

Saddle board
Two long pieces of plank running horizontally the length of the roof ridge and nailed together to form an inverted V-shape.

Scantling
As applied to timber, the word usually denotes the sectional dimensions, i.e. the thickness and breadth, of a timber regardless of its length.

Shanty
See Tilt.

Shingle
A thin rectangular piece of wood having one end thicker than the other used as a house tile on the roof or external walls of a building.

Sill
A strong horizontal timber serving as the foundation for a wall.

Sleeper
A strong horizontal beam, resting on grounds posts and supporting the joists or other main part of a building.

Spline
See Lath.

Stud
One of the upright timbers in the wall of a building.

Studded Wall
A wall constructed of abutting, vertical studs.

Tenon

A projection fashioned on the end or side of a piece of wood to fit into a corresponding cavity in another piece to make a secure join.

Tilt

In Newfoundland, a crude, temporary dwelling usually containing only one room and constructed of vertically placed round sticks, abutting each other. In other parts of North America, the equivalent form is usually called a shanty.

Tongue and Groove

A projecting tenon along the edge of a board, to be inserted into a groove in the edge of another board.

Trunnel (Tree Nail)

A headless wooden pin used to fasten together two pieces of wood. In Trinity Bay particularly the joists and sleepers in a building.

Tun

A chimney, especially the upper part above the roof.

Wall Plate

A board placed horizontally at the top of a wall to form a support for the roof rafters.

Weather-board

See Clapboard (North America).

APPENDIX ONE

Field Data

English Harbour

House No.	Generation	Date of Construction	Width	Length	Floor Area (Sq. Ft.)	Studded	Frame	Central Front Door	Renovated
1	2	1879	25'2"	26'0"	975	*		*	*
2	3	1920	25'2"	26'0"	1300		*	*	
3	1	1879	24'0"	27'8"	1008	*			*
4	4	1952	24'0"	27'8"	1344		*		
5	2	1905	23'9"	24'9"	900	*			*
6	3	1926	23'9"	24'9"	1200	*			
7	2	1900	25'7"	24'0"	936		*	*	
8	2	1893	24'4"	25'7"	936	*		*	
9	1	1877	22'0"	20'0"	660	*		*	
10	2	1895	25'8"	24'11"	975	*		*	
11	1	1885	22'6"	19'7"	690	*			
12	1	1835	20'0"	18'0"	540	*			
13	1	1875	20'0"	20'0"	600	*			
14	2	1880	22'0"	21'0"	693	*			
15	1	1857	21'0"	19'0"	599	*			
16	2	1885	22'5"	23'1'	793	*			
17	3	1897	26'7"	22'6"	1242	*		*	
18	4	1941	26'7"	22'6"	1242	*		*	
19	1	1910	21'8"	24'2"	792		*		*
20	4	1940	21'8"	24'2"	1004		*		
21	1	1860	22'0"	21'0"	693	*			
22	2	1898	26'0"	22'4"	858		*	*	*
23	4	1956	26'0"	22'4"	1144		*	*	*
24	4	1910	23'9"	21'5"	1008		*		
25	4	1910	28'6"	24'5"	1392		*	*	
26	1	1860	20'0"	18'0"	540	*			
27	4	1890	22'7"	21'8"	1012		*		*
28	4	1943	22'7"	21'8"	1012		*		
29	2	1875	22'0"	21'0"	693	*			
30	4	1913	25'8"	25'2"	1300		*	*	
31	4	1920	27'6"	27'10"	1120	*		*	
32	1	1850	20'0"	20'0"	600	*			
33	1	1876	20'7	19'10"	630	*			
34	1	1872	20'0"	18'0"	540	*			
35	1	1882	21'6"	19'7"	660	*			
36	3	1902	26'7"	27'6"	1458		*	*	*
37	4	1937	26'7"	27'6"	1458		*	*	
38	1	1890	23'7"	24'0"	864	*			
39	1	1901	22'0"	20'4"	660	*			
40	1	1880	22'0"	20'0"	660	*			

Field Data

English Harbour

House No.	Generation	Date of Construction	Width	Length	Floor Area (Sq. Ft.)	Studded	Frame	Central Front Door	Renovated
41	1	1882	22'0"	21'0"	693	*			
42	1	1902	23'0"	21'0"	724		*	*	
43	2	1900	26'5"	22'7"	858		*		*
44	3	1930	26'5"	22'7"	1144		*		
45	1	1870	21'9"	22'6"	759	*			
46	1	1876	21'0"	18'0"	647	*			
47	3	1909	24'8"	24'4"	1200	*			*
48	4	1960	24'8"	24'4"	1200	*			
49	1	1869	21'0"	20'0"	630	*			
50	1	1861	23'2"	24'9"	862	*			*
51	2	1920	23'2"	24'9"	1150		*		
52	1	1877	23'0"	21'0"	724	*			
53	1	1885	21'7"	19'4"	627	*			
54	2	1895	23'2"	21'0"	724	*		*	
55	1	1885	21'0"	19'0"	599	*			
56	2	1904	24'7"	22'0"	825		*	*	
57	1	1890	20'0"	22'0"	660	*			
58	1	1892	24'0"	24'9"	900		*		
59	1	1876	23'0"	21'7"	759	*			
60	2	1900	25'5"	22'0"	825		*	*	*
61	4	1942	25'5"	23'0"	1100		*	*	
62	3	1974	21'5"	23'0"	724	*			*
63	4	1956	21'5"	23'0"	966	*			
64	2	1897	26'2"	26'9"	1053		*	*	
65	1	1877	21'6"	19'7"	660	*			
66	3	1897	23'8"	21'8"	936	*			
67	3	1905	24'6"	25'7"	975	*		*	*
68	4	1948	24'6"	25'7"	1300	*		*	
69	2	1897	25'2"	26'0"	975		*	*	
70	1	1956	20'0"	20'0"	600	*			
71	4	1900	24'6"	21'1"	1050		*	*	
72	1	1870	20'0"	18'0"	540	*			
73	1	1854	21'0"	20'0"	630	*			
74	1	1870	22'0"	20'0"	660	*			
75	2	1901	24'6"	21'5"	787		*	*	*
76	3	1904	24'6"	21'5"	1050		*	*	
77	4	1907	25'6"	24'8"	1300		*		
78	3	1920	25'10"	22'2"	1144	*		*	
79	1	1870	18'0"	20'0"	540	*			
80	1	1874	20'0"	20'0"	600	*			

Field Data English Harbour	House No.	Generation	Date of Construction	Width	Length	Floor Area (Sq. Ft.)	Studded	Frame	Central Front Door	Renovated
	81	4	1900	24'7"	22'1"	1100		*	*	
	82	1	1874	22'0"	20'0"	660	*			
	83	3	1905	24'7"	22'2"	1100		*	*	
	84	2	1875	25'0"	24'0"	900	*			
Old Bonaventure	85	1	1885	22'4"	19'6"	600	*			*
	86	4	1910	22'4"	19'6"	880	*			
	87	4	1885	24'0"	23'3"	1104	*		*	
	88	4	1900	29'9"	27'4"	1620		*	*	
	89	4	1926	23'3"	21'9"	1012	*			
	90	4	1905	22'4"	20'9"	1450		*	*	
	91	4	1905	29'0"	24'8"	1450		*	*	
	92	2	1887	26'6"	21'10"	891	*		*	*
	93	4	1915	26'6"	21'11"	1188	*		*	
	94	3	1896	25'9"	23'7"	1248	*		*	*
	95	4	1930	25'9"	23'7"	1248	*		*	
	96	1	1905	21'0"	20'0"	630	*			
	97	1	1898	22'4"	18'7"	627	*		*	
	98	1	1891	24'7"	22'0"	825	*			*
	99	4	1935	24'7"	22'0"	1100		*	*	
	100	4	1900	25'9"	23'7"	1248		*	*	
	101	2	1899	27'10"	26'9"	1134	*		*	*
	102	3	1921	27'10"	26'9"	1512		*	*	
	103	1	1890	21'4"	20'9"	661	*		*	
	104	1	1899	23'7"	20'9"	756	*		*	
	105	1	1867	22'6"	20'0"	690	*			
	106	1	1895	21'9"	20'7"	693	*			
	107	1	1880	23'0"	18'7"	655	*			
	108	1	1870	22'0"	21'0"	693	*			
	109	2	1920	26'0"	21'0"	858		*	*	*
	110	4	1956	26'0"	21'0"	1144		*	*	
	111	1	1885	21'8"	23'7"	792	*			
	112	4	1910	24'5"	22'7"	1104		*		
	113	2	1889	27'3"	24'2"	972		*		
	114	4	1871	19'0"	18'7"	722	*			
	115	2	1880	26'4"	23'0"	897	*			
	116	4	1923	26'4"	23'0"	1196		*	*	*
	117	4	1910	26'9"	27'11"	1458		*	*	
	118	2	1905	28'0"	27'4"	1154		*	*	*
	119	3	1920	28'0"	27'4"	1512		*	*	

	House No.	Generation	Date of Construction	Width	Length	Floor Area (Sq. Ft.)	Studded	Frame	Central Front Door	Renovated
Old Bonaventure	120	4	1918	25'7"	24'4"	1248		*	*	
	121	2	1895	26'0"	24'0"	936	*			
	122	4	1910	28'4"	26'0"	1456		*	*	
	123	3	1905	24'9"	23'7"	1200		*	*	*
	124	4	1930	24'9"	23'7"	1200		*	*	
	125	3	1909	23'6"	23'3"	1104		*	*	
	126	3	1910	20'4"	19'0"	1050		*	*	
	127	2	1888	22'5"	19'4"	627	*			*
	128	3	1906	19'4"	14'0"	836		*	*	
	129	1	1872	21'7"	18'8"	627	*			
	130	4	1928	24'0"	23'3"	1104		*	*	
New Perlican	131	4	1910	21'6"	23'5"	1012		*		
	132	4	1928	23'0"	22'0"	1012		*		
	133	3	1900	24'9"	23'7"	1200		*	*	*
	134	4	1930	24'9"	23'7"	1200		*	*	
	135	3	1891	22'6"	23'2"	1058		*	*	*
	136	4	1932	22'6"	23'2"	1058		*	*	
	137	3	1901	23'7"	22'0"	1056		*		*
	138	4	1947	23'7"	22'0"	1056		*		
	139	3	1892	23'6"	20'3"	960		*		*
	140	4	1937	23'6"	20'3"	960		*		
	141	4	1905	24'0"	20'0"	960		*		
	142	1	1890	20'0"	19'6"	600		*		
	143	3	1900	27'5"	22'4"	1188		*	*	*
	144	4	1946	27'5"	22'4"	1188		*	*	
	145	2	1880	27'10"	22'8"	966		*	*	*
	146	3	1920	27'10"	22'8"	1288		*	*	
	147	3	1896	22'8"	20'6"	724	*	*	*	
	148	4	1918	22'8"	20'6"	966		*	*	
	149	1	1882	22'6"	20'6"	724		*		*
	150	4	1932	22'6"	20'6"	966		*		
	151	2	1887	26'9"	19'0"	769		*		*
	152	3	1920	26'9"	19'0"	1026		*		
	153	2	1893	23'6"	23'3"	828		*		*
	154	3	1925	23'6"	23'3"	1104		*		*
	155	4	1945	23'6"	23'3"	1104		*		
	156	3	1894	24'5"	21'5"	1008		*	*	
	157	4	1928	24'5"	20'8"	1008		*		
	158	2	1885	22'7"	20'6"	724		*		*
	159	3	1935	22'7	20'6"	966		*	*	

	House No.	Generation	Date of Construction	Width	Length	Floor Area (Sq. Ft.)	Studded	Frame	Central Front Door	Renovated
New Perlican	160	4	1925	28'6"	22'4"	1276		*	*	
	161	3	1908	24'8"	22'9"	1150		*	*	*
	162	4	1929	24'8"	22'9"	1150		*	*	
	163	2	1905	23'9"	20'9"	756		*	*	*
	164	3	1923	23'9"	20'9"	1008		*	*	
	165	3	1910	24'2"	21'7"	1056		*		
	166	4	1920	23'8"	22'9"	1104		*	*	
	167	3	1896	23'8"	22'8"	1004		*		*
	168	4	1930	23'8"	22'8"	1004		*		
	169	3	1911	23'10"	20'8"	1008		*	*	
	170	3	1903	21'10"	24'9"	1100		*	*	*
	171	4	1940	21'10"	24'9"	1100		*	*	
	172	3	1897	22'11"	20'5"	920		*	*	
	173	4	1936	23'11"	20'9"	1008		*		
	174	3	1919	25'6"	22'6"	1196		*	*	
	175	3	1900	23'4"	18'9"	874		*	*	
	176	4	1908	24'5"	20'7"	1008		*	*	
	177	3	1893	23'8"	19'4"	912		*	*	*
	178	4	1928	23'8"	19'4"	912		*	*	
	179	2	1886	23'5"	21'4"	724		*	*	*
	180	3	1920	23'5"	21'4"	966		*	*	
	181	4	1931	24'9"	19'6"	1000		*		
	182	4	1917	22'9"	19'0"	874		*		
	183	2	1882	22'5"	19'4"	627		*	*	*
	184	3	1934	22'5"	19'4"	836		*	*	
	185	4	1910	21'10"	20'6"	920		*		
	186	3	1908	25'6"	20'7"	1092		*	*	
	187	3	1905	22'8"	19'7"	920		*	*	
	188	2	1888	24'3"	25'3"	900		*		*
	189	4	1941	24'3"	25'3"	1200		*		
	190	3	1893	23'7"	20'6"	1008		*	*	
	191	2	1886	21'7"	18'8"	627		*		
Hants Harbour	192	1	1880	21'0"	19'0"	600	*			
	193	1	1885	22'9"	20'3"	690		*	*	*
	194	3	1900	22'9"	20'3"	920		*	*	
	195	2	1890	24'7"	22'4"	825		*	*	*
	196	4	1945	24'7"	22'4"	1100		*	*	
	197	3	1901	24'7"	22'4"	1100		*		
	198	2	1890	24'0"	21'2"	756		*		*
	199	4	1930	24'0"	21'2"	1008		*		

Hants Harbour	House No.	Generation	Date of Construction	Width	Length	Floor Area (Sq. Ft.)	Studded	Frame	Central Front Door	Renovated
	200	4	1900	25'8"	21'7"	1144		*	*	
	201	4	1905	25'7"	24'3"	1248		*	*	
	202	2	1891	24'10"	21'1"	787		*		*
	203	4	1946	24'10"	21'1"	1050		*		
	204	2	1902	25'4"	24'0"	900		*	*	
	205	2	1890	24'8"	20'7"	787		*		*
	206	1	1870	20'4"	19'0"	570		*		
	207	2	1865	28'2"	27'4"	1134		*		*
	208	4	1927	28'2"	27'4"	1512		*		
	209	2	1887	25'7"	23'4"	897		*		
	210	2	1896	26'7"	24'4"	972		*	*	*
	211	4	1940	26'7"	24'4"	1296		*	*	
	212	1	1870	20'2"	18'3"	540		*		
	213	3	1900	26'3"	21'7"	1144		*		
	214	2	1885	24'8"	24'2"	900		*	*	*
	215	3	1903	24'8"	24'2"	1200		*	*	
	216	1	1860	20'6"	19'9"	630		*		
	217	2	1865	25'7"	24'0"	936		*		
	218	4	1905	25'7"	24'4"	1248		*	*	
	219	1	1910	20'1"	17'5"	510		*		
	220	1	1900	21'4"	17'7"	567		*		
	221	4	1931	24'7"	25'7"	1248		*	*	
	222	2	1907	24'9"	22'7"	862		*	*	*
	223	4	1944	24'9"	22'7"	1150		*	*	
	224	3	1898	26'7"	20'9"	1134		*	*	
	225	3	1900	26'9"	25'7"	1404		*	*	
	226	4	1903	26'4"	23'7"	1258		*	*	
	227	3	1889	30'6"	22'3"	1364		*	*	
	228	2	1870	25'7"	26'2"	1014		*		
	229	1	1890	26'8"	20'8"	850		*		*
	230	3	1930	26'8"	20'8"	1134		*		*
	231	4	1950	26'8"	20'8"	1134		*		
	232	4	1929	26'4"	24'2"	1248		*	*	
	233	2	1890	25'7"	18'5"	702		*	*	*
	234	4	1955	25'7"	18'5"	936		*	*	
	235	2	1895	23'4"	21'0"	724		*	*	*
	236	4	1937	23'4"	21'0"	966		*	*	
	237	2	1898	24'8"	20'0"	750		*	*	*
	238	4	1925	24'8"	20'0"	1000		*	*	
	239	4	1890	22'1"	19'4"	836		*		
	240	2	1910	24'8"	21'1"	787		*	*	*

Hants Harbour	House No.	Generation	Date of Construction	Width	Length	Floor Area (Sq. Ft.)	Studded	Frame	Central Front Door	Renovated
	241	4	1940	24'8"	21'1"	1050		*	*	
	242	4	1932	27'10"	22'9"	1288		*	*	
	243	1	1880	25'0"	20'1"	750		*	*	*
	244	4	1935	25'0"	20'1"	1000		*	*	
	245	2	1880	25'7"	24'10"	975		*	*	*
	246	4	1955	25'7"	24'10"	1300		*	*	
	247	2	1887	25'9"	28'9"	1131		*	*	
	248	4	1910	26'9"	24'7"	1350		*	*	
	249	4	1900	26'5"	21'5"	1094		*		
	250	4	1907	25'9"	22'3"	1144		*		
	251	3	1890	23'6"	26'6"	1296		*	*	
	252	1	1875	24'7"	21'10"	825		*		*
	253	4	1919	24'7"	21'10"	1100		*		
	254	3	1910	26'5"	21'5"	1092		*	*	*
	255	4	1939	26'5"	21'5"	1092		*	*	
	256	2	1988	24'7"	22'9"	862		*	*	*
	257	3	1905	24'7"	22'9"	1150		*	*	
	258	4	1940	24'8"	20'7"	1050		*	*	

Footnotes

Ch. II

[1]*Manuscript, A list of the Planters Names, etc. [in Newfoundland]* 1675. J. Berry, Centre for Newfoundland Studies, Memorial University of Newfoundland.

[2]A 13, C.O. 194; p. 98.

[3]A 18, C.O. 194; p. 98.

[4]*Personal Communication*, K. Matthews, 1975.

[5]D365 Dorset Record Office, Dorchester. *Letter Book of The Lester-Garland Families*, F21, 1994-1815.

[6]D365 Dorset Record Office, Dorchester. *Diary of Benjamin Lester*, F2, 1719-64.

[7]Ibid.

[8]Ibid.

[9]*Census of Newfoundland*, 1836-1884.

[10]*Census of Newfoundland*, 1854-1901.

[11]*Field Research*, 1970-71.

[12]*Census of Newfoundland*, 1884.

Ch. III

[1]*Private Letter, William Miller, 1957.* In possession of the author.

[2]*Records of the Colonial Office*, 194:43, A18, p. 32.

[3]Floor area was calculated as 1½ times the ground floor area for the first and second generation, and twice the ground floor area for the third and fourth generation houses.

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